

**Intercultural Composition: An Analysis of the First Movement of Justinian Tamusuza's  
*Mu Kkubo Ery'Omusaalaba* for String Quartet  
and  
Baakisimba Ne'biggu  
(an Original Chamber Composition)**

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University of Pittsburgh, 2012

*Mu Kkubo Ery'Omusaalaba* (1993) by Ugandan composer Justinian Tamusuza is an important representative of an intercultural composition in which the style of the piece embraces the amalgamation of Western and non-Western musical idioms. The particular non-Western musical idioms that this piece employs include *Kiganda*<sup>1</sup> compositional styles and processes through devices such as the simulation of *Kiganda* musical instruments and the use of traditional *Kiganda* thematic materials, dialogue passages in what is commonly known as “call and response,” hemiola, limited pitch range and material, and repetitive rhythmic and polyrhythmic block textures to give prominence to rhythm as a significant component in defining structure. It is my thesis that a holistic examination of these components will reveal the underlying structure of the piece.

The second part of this dissertation, *Baakisimba N'ebiggu*, is a composition for violin, cello, percussion and prepared piano in which I fused *Kiganda* musical processes and contemporary Western musical idioms. The first and third sections of the piece employ a pentachordal pitch class set reminiscent of the *Kiganda* musical tradition. In the second section, a twelve-tone row is employed repetitively in order to contextualize a Western-influenced tonal arrangement with a *Kiganda* sound. The row is not transposed, but rather repeated with various

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<sup>1</sup> *Kiganda* describes the traditions and customs of the *Baganda* people of Central Uganda.



musical transformations in register, dynamics, tone color, and speed (expansions and contractions), as well as motivic fragmentation, and superimposition of the row in multiple voices and at various intervals. The latter technique produces an interesting sequence of progressions ranging from triadic to complex chromatic harmonies.

In his string quartet *Mu Kkubo Ery'Omusaalaba*, Tamusuza negotiates the intermarriage of *Kiganda* and Western musical worlds through a fluid interactive process. Similarly, my own work *Baakisimba N'ebiggu* is a culmination of my musical encounters, the result of which is a comparable blending of *Kiganda* stylistic idioms and processes with Western compositional techniques in order to create a unique aesthetic product. Nevertheless, there are many points of departure from Tamusuza's approach, especially when it comes to instrumentation, stylistic simulations, pitch and harmonic language, as well as the overall structural and compositional strategies of the piece.

## TABLE OF CONTENTS

<b>PREFACE.....</b>	<b>XVIII</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>1.1 JUSTINIAN TAMUSUZA.....</b>	<b>4</b>
<b>2.0 METHODOLOGY.....</b>	<b>8</b>
<b>2.1 ANALYTICAL APPROACH OF THE STUDY.....</b>	<b>9</b>
<b>2.1.1 Simha Arom’s Approach.....</b>	<b>12</b>
<b>2.1.2 Ayodamope Oluranti’s Approach.....</b>	<b>15</b>
<b>3.0 MU KKUBO ERY'OMUSAALABA: A MUSICOLOGICAL PERSPECTIVE.....</b>	<b>19</b>
<b>3.1 TITLE AND OPENING THEMATIC MATERIAL.....</b>	<b>19</b>
<b>3.1.1 Relationship of the Text to the Thematic Material.....</b>	<b>23</b>
<b>3.2 INSTRUMENTATION /KIGANDA STYLISTIC SIMULATION.....</b>	<b>26</b>
<b>3.2.1 Kiganda Vocal Styles/Compositional Processes.....</b>	<b>29</b>
<b>3.3 RANGE OF THE PIECE.....</b>	<b>31</b>
<b>4.0 ANALYSIS OF THE FIRST MOVEMENT.....</b>	<b>34</b>
<b>4.1 THE OPENING 4-BAR THEMATIC MATERIAL.....</b>	<b>34</b>
<b>4.1.1 DPR as a Structural Parameter.....</b>	<b>35</b>

4.1.2	Other Characteristics of the Opening 4-Bar Thematic Material.....	40
4.2	FORMAL STRUCTURE.....	43
4.3	PHRASEOLOGY.....	44
4.3.1	Interpreting the Phrase Design.....	47
4.4	FUNCTIONALITY OF PHRASES.....	49
4.4.1	4-Bar Opening Thematic Material without Countermelody.....	50
4.4.2	4-Bar Opening Thematic Material with Countermelody.....	51
4.4.3	4-Bar Phrases with Thematic Imitation/Response.....	53
4.4.4	4-Bar Secondary Thematic Dialogue.....	55
4.5	3-BAR PHRASING.....	57
4.6	5-BAR PHRASING.....	59
4.6.1	5-Bar Closing Response.....	61
4.7	6-BAR PHRASING.....	62
4.8	7-BAR PHRASING.....	65
4.9	8-BAR PHRASING.....	67
4.10	9-BAR PHRASING.....	69
4.11	PHRASE AMBIGUITY.....	70
4.12	POLYRHYTHMIC BLOCK TEXTURES.....	72
4.12.1	Analytical Observations From the PD Graphs.....	77
5.0	CONCLUSION OF THE STUDY.....	81
APPENDIX A.....		85
APPENDIX B.....		88
APPENDIX C.....		91

<b>APPENDIX D.....</b>	<b>99</b>
<b>BIBLIOGRAPHY.....</b>	<b>100</b>
<b>BAAKISIMBA N'EBIGGU.....</b>	<b>102</b>
<b>PROGRAM NOTES.....</b>	<b>103</b>

## LIST OF TABLES

Table 1: The Analytical Scheme.....	9
Table 2: Polyrhythmic Degree (PD) in Each Ostinato Cycle.....	17
Table 3: Text and Intonation Levels in Luganda.....	20
Table 4: Calculation of Pitch Repetition in the Opening 4-Bar Thematic Material.....	36
Table 5: Formal Division of the First Movement of <i>Mu Kkubo Ery'Omusaalaba</i> .....	44
Table 6: Summary of Phrase Lengths.....	47
Table 7: Polyrhythmic Blocks and Their Representative Polyrhythmic Degrees.....	73-74
Table 8: Justinian Tamusuza's Selected Output.....	99

## LIST OF FIGURES

Figure 1: Polyrhythmic Block (PRB) of Example 4.....	14
Figure 2(a): PRB of m.173.....	16
Figure 2(b): PRB of m.174.....	16
Figure 2(c): PRB of m.175.....	17
Figure 2(d): PRB of m.176.....	17
Figure 3(a): The Baakisimba Drum Set.....	27
Figure 3(b): <i>Endingidi</i> and <i>Ensaasi</i> .....	27
Figure 4: DPR Graph of the Opening Thematic Material.....	37
Figure 5(a): Phrase Reduction of Section A.....	45
Figure 5(b): Phrase Reduction of Section A'.....	45
Figure 5(c): Phrase Reduction of Section A''.....	46
Figure 5(d): Phrase Reduction of the Reprise Section-A'.....	46
Figure 6: DPR Graph of the Closing Responsorial Material.....	61
Figure 7(a): PDs of the First Movement of Tamusuza's String Quartet.....	74
Figure 7(b): PDs of Section A.....	75
Figure 7(c): PDs of Section A'.....	75

Figure 7(d): PDs of the Reprising Section A''	76
Figure 7(e): PDs of the Recapitulating Section-A'	76
Figure 8: PD Graph of the Overall Climactic Moments/Structure	79
Figure 9: PRB Chances for Ostinato 1	88
Figure 10: PRB Chances for Ostinato 2	88
Figure 11: PRB Chances for Ostinato 3	88
Figure 12: PRB Chances for Ostinato 4	88
Figure 13: PRB Chances for Ostinato 5	88
Figure 14: PRB Chances for Ostinato 6	89
Figure 15: PRB Chances for Ostinato 7	89
Figure 16: PRB Chances for Ostinato 8	89
Figure 17: PRB Chances for Ostinato 9	89
Figure 18: PRB Chances for Ostinato 10	89
Figure 19: PRB Chances for Ostinato 11	90
Figure 20: PRB Chances for Ostinato 12	90
Figure 21: PRB Chances for Ostinato 13	90
Figure 22: PRB Chances for Ostinato 14	90
Figure 23: PRB 1 in m.5 in Viola and Cello	91
Figure 24: PRB 2 in m.9 in Violin 2 and Cello	91
Figure 25: PRB 3 in m.13-14 in Viola and Cello	91
Figure 26: PRB 4 in m.29 in Viola and Cello	91
Figure 27: PRB 5 in m.30 in Viola and Cello	92
Figure 28: PRB 6 in m.39 in Violin 1 and Viola	92

Figure 29: PRB 7 in m.41 in Violins 1 and 2.....	92
Figure 30: PRB 8 in m.48 in Violin 1 and Cello.....	92
Figure 31: PRB 9 in m.49 in Violin 2 and Cello.....	92
Figure 32: PRB 10 in m.53 in Violins 1 and 2.....	93
Figure 33: PRB 11 in m.62 in Violin 1 and Cello.....	93
Figure 34: PRB 12 in m.70 in Violin 2 and Cello.....	93
Figure 35: PRB 13 in m.97 in Viola and Cello.....	93
Figure 36: PRB 14 in m.104 in Viola and Cello.....	93
Figure 37: PRB 15 in m.111 in Violin 1 and Cello.....	94
Figure 38: PRB 16 in m.112 in Violins 1 and 2.....	94
Figure 39: PRB 17 in m.116 in Viola and Cello.....	94
Figure 40: PRB 18 in m.123 in Violin 2 and Viola.....	94
Figure 41: PRB 19 in m.127 in Violin 2 and Viola.....	94
Figure 42: PRB 20 in m.132 in Violin 2 and Cello.....	95
Figure 43: PRB 21 in m.134 in Violin 1 and Viola.....	95
Figure 44: PRB 22 in m.139 in Violin 1 and Viola.....	95
Figure 45: PRB 23 in m.147 in Violins 1 and 2.....	95
Figure 46: PRB 24 in m.161 in Violin 1 and Viola.....	95
Figure 47: PRB 25 in m.169 in Violins 1 and 2.....	96
Figure 48: PRB 26 in m.173 in Violin 1 and Cello.....	96
Figure 49: PRB 27 in m.177 in Viola and Cello.....	96
Figure 50: PRB 28 in m.187 in Violin 1 and Cello.....	96
Figure 51: PRB 29 in m.188 in Violin 1 and Cello.....	96



Figure 52: PRB 30 in m.195 in Viola and Cello.....	97
Figure 53: PRB 31 in m.196 in Viola and Cello.....	97
Figure 54: PRB 32 in m.212 in Violin 2 and Cello.....	97
Figure 55: PRB 33 in m.219 in Violin 2 and Cello.....	97
Figure 56: PRB 34 in m.223 in Violin 1 and Cello.....	97
Figure 57: PRB 35 in m.225 in Violin 1 and Cello.....	98
Figure 58: PRB 36 in m.227 in Violin 2 and Viola.....	98
Figure 59: PRB 37 in m.232 in Violins 1 and 2.....	98
Figure 60: PRB 38 in m.233 in Violin 1 and Cello.....	98
Figure 61: PRB 39 in m.239 in Viola and Cello.....	98

## LIST OF EXAMPLES

Example 1: Rhythmic Accentuation.....	12
Example 2: Rhythmic Tonal Color.....	12
Example 3: Rhythmic Duration.....	13
Example 4: Violin 2 and Cello Excerpt (m.69).....	14
Example 5: Violin 1 and Cello Excerpt (m.173-176).....	16
Example 6: The Three <i>Luganda</i> Tonal Levels.....	20
Example 7(a): The Intonation of Kkubo (The Road).....	21
Example 7(b): The Intonation of Kkubo (Among Them).....	21
Example 8(a): Spoken Intonation of the First Line.....	23
Example 8(b) Vocal/Instrumental Intonation of the First Line.....	23
Example 9(a): Spoken Intonation of the Second Line.....	23
Example 9(b): Vocal/Instrumental Intonation of the Second Line.....	24
Example 10(a): Spoken Intonation of the Third Line.....	24
Example 10(b): Vocal/Instrumental Intonation of the Third Line.....	24
Example 11(a): Spoken Intonation of the Fourth Line.....	24
Example 11(b): Vocal/Instrumental Intonation of the Fourth Line.....	24

Example 11(c): The Four Vocal Lines of the Opening Thematic Material.....	25
Example 11(d): Opening 4-Bar Thematic Material.....	26
Example 12: Range of Each Section.....	32
Example 13(a): Opening 4-Bar Thematic Material.....	34
Example 13(b): 5-Bar Thematic Response of Section A'.....	38
Example 13(c): Final 5-Bar Responsorial Material (mm.236-240).....	39
Example 14(a): Thematic Variation/Transposition in Violin 1 (m.48-51).....	41
Example 14(b): Thematic Expansion in Violin 1 (m.82-86).....	41
Example 14(c): Repeated and Varied Thematic Fragments.....	41
Example 15(a): Viola Response (m.76-80).....	42
Example 15(b): Viola Response (m.87-93).....	42
Example 15(c): Fragmented Response.....	42
Example 15(d): Fragmented Response.....	43
Example 16(a): Countermelody 1 (m.5-6).....	52
Example 16(b): Countermelody 2 (m.73-75).....	52
Example 16(c): Varied Countermelody 2.....	53
Example 17(a): First Imitated Thematic Variation.....	53
Example 17(b): Second Imitated Thematic Variation.....	54
Example 18(a): 4-Bar Rhythmic Response (mm.109-112).....	54
Example 18(b): 4-Bar Lyrical/Rhythmic Response (mm.187-190).....	55
Example 18(c): 4-Bar Rhythmic Response (mm.195-198).....	55
Example 18(d): 4-Bar Rhythmic Response (mm.214-217).....	55
Example 19(a): Secondary Thematic Dialogue (mm.159-162).....	56

Example 19(b): Violins 1 and 2 Secondary Thematic Dialogue.....	56
Example 20(a): 3-Bar Secondary Thematic Dialogue (mm.17-19).....	57
Example 20(b): 3-Bar Thematic Fragment (mm.104-106).....	58
Example 20(c): 3-Bar Bridge Passage (mm.170-172).....	58
Example 21(a): 5-Bar Secondary Thematic Dialogue (mm.20-24).....	59
Example 21(b): 5-Bar Secondary Theme in Violin 1 (mm.25-29).....	60
Example 21(c): 5-Bar Responsorial Material (mm.76-80).....	60
Example 21(d): 5-Bar Secondary Thematic Fragment and Repetition (mm.30-34).....	60
Example 21(e): 5-Bar Closing Response (mm.236-240).....	61
Example 22(a): 2+4 Pattern in a 6-Bar Dialogue Phrase (mm.107-112).....	62
Example 22(b): 4+2 Pattern in a 6-Bar Fragmented/Imitative Phrase (mm.35-40).....	63
Example 22(c): 4+4 Pattern with a 6-Bar Elongated Thematic Ending (mm.173-178).....	64
Example 23(a): 7-Bar Responsorial Material.....	65
Example 23(b): 7-Bar Secondary Theme/Counter melodic Elision.....	66
Example 23(c): 7-Bar Thematic Dialogue (mm.199-205).....	67
Example 24(a): 8-Bar Repetitive Responsorial Fragment (mm.113-120).....	68
Example 24(b): 8-Bar Secondary Thematic Material (mm.151-158).....	68
Example 25: 9-Bar Fragmented/ Imitative Phrase.....	69
Example 26(a): Ostinato 1.....	85
Example 26(b): Ostinato 2 (Variation of Ostinato 1).....	85
Example 26(c): Ostinato 3 (Variation of Ostinato 1).....	85
Example 26(d): Ostinato 4 (Variation of Ostinato 1).....	85
Example 27(a): Ostinato 5.....	85

Example 27(b): Ostinato 6 (Variation of Ostinato 5).....	86
Example 28(a): Ostinato 7.....	86
Example 28(b): Ostinato 8 (Variation of Ostinato 7).....	86
Example 29(a): Ostinato 9.....	86
Example 29(b): Ostinato 10 (Variation of Ostinato 9).....	86
Example 29(c): Ostinato 11 (Variation of Ostinato 9).....	86
Example 30(a): Ostinato 12.....	87
Example 30(b): Ostinato 13 (Variation of Ostinato 12).....	87
Example 31: Ostinato 14.....	87

## **PREFACE**

I wish to express my sincere thanks to my composition professors, Amy Williams, Eric Moe, Mathew Rosenblum, and Trevor Bjorkland, for teaching me composition at the graduate level for three years. Without your tireless efforts and positive critique, the second component of my dissertation would not have been possible. In particular, I thank Dr. Amy Williams who, in addition to teaching me composition, has worked hard to see to it that this project comes out successfully.

I dedicate this dissertation to my beloved late big brother, Hon. Emmanuel Bukenya (1973-2012), who passed away towards the end of my dissertating process, but whose brotherly love, care, and encouragement has always kept a light burning throughout my academic pursuits. I will always miss him and most of all, remember and cherish the time I spent with him until we meet again. Rest in eternal peace Emma.

## 1.0 INTRODUCTION

In the book *Music Since 1945*, Elliott Schwartz and Daniel Godfrey note that “after 1945 the search beyond Western art music intensified, and among the most important participants were those whose music was shaped both by conventional Western practice and by their own non-Western roots.”<sup>2</sup> A notable and influential figure was Béla Bartók, a Hungarian composer who spent much time collecting, analyzing, classifying, and transforming Hungarian folk music into original compositions.

Blending folk and Western/European musical idioms as a compositional approach defined Bartók’s style and also established a strong model for future composers from different backgrounds. For example, Steve Reich, Philip Glass, Alan Hovhaness, Chou Wen-Chung, Toru Takemitsu, Isang Yun, Olivier Messiaen, George Crumb, Kevin Volans, Bill Alves, Abdul-Rahim, Akin Euba, Fella Sowande, and Justinian Tamusuza, among many others, have successfully incorporated non-Western musical materials as a way of articulating their backgrounds as well as bridging their particular perspectives with Western musical idioms. As a result of the aforementioned composers’ musical and formal training, the culmination of a

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<sup>2</sup> Elliott Schwartz and Daniel Godfrey, *Music Since 1945: Issues, Materials, and Literature* (Broadway: New York, 1992),196.

synthetic approach to composition is what Akin Euba and Cynthia Kimberlin conceptualize as intercultural music,<sup>3</sup> a framework that informs the analytical approach to this study.

With particular reference to Africa, Euba and Kimberlin note that intercultural music came about through Islam and Christianity, each of which promoted the appreciation of non-African musical styles.<sup>4</sup> In the same manner, Bode Omojola stresses that “the introduction of missionary schools and establishment of churches helped to create an atmosphere conducive to the teaching and practice of European music.”<sup>5</sup> Through this encounter, composers in Africa were introduced to Western/European music alongside oral traditional training in their ethnic music. The result of this encounter is African art music, which Paul Konye defines as “a category of composed music, written or otherwise, which takes into consideration tonal, traditional, structural, and stylistic concerns in its synthesis.”<sup>6</sup> On the one hand, Konye’s definition considers the binary ingredient of African art music composers and the resultant effect of their experiences. On the other hand, its limited scope to art music composition in Africa seems not to accommodate other non-Western/European compositions whose musical styles embrace the same synthetic process. However, Euba’s definition of creative musicology, “a process of translating the results of research into composition,”<sup>7</sup> improves upon the shortcomings of Konye’s term and also draws our attention to scholarly work in both non-Western and Western musical traditions as resources for creative art music composition.

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<sup>3</sup> Cynthia T. Kimberlin and Akin Euba, eds., *Intercultural Music*. Vol. 1 (Bayreuth African Studies, 1995), 2.

<sup>4</sup> Ibid., 9.

<sup>5</sup> Bode Omojola, “Contemporary Art Music in Nigeria: An Introductory Note on the Works of Ayo Bankole,” *African* 64, (1994), 534.

<sup>6</sup> Paul Konye, “Twentieth-Century Nigerian Art Music: Social, Political, and Cultural Factors Involved in Its Evolution and Practice”, (PhD Diss., University of Kentucky, 1997), 57.

<sup>7</sup> Akin Euba and Cynthia T. Kimberlin, eds., *Composition in Africa and the Diaspora*. Vol. 1 (Point Richmond: California), 149.



It is therefore not surprising, that creative musicology defines the way that most art music composers in Africa integrate Western and African musical idioms to form their original works.

Among many other approaches to intercultural composition is the blending of Western and non-Western musical instrumentation, a good example being Akin Euba's opera *Chaka*, in which he combines West African and Western/European percussion instruments. Employing such instrumentation not only evokes African sonorities, but also bridges the gap between diverse musical traditions of African and the West. Euba's *Chaka* instrumentation, however, poses some practical limitations concerning the availability of African instruments among Western performing ensembles and the skill it takes to play them.

In searching for more practical performance solutions as well as new sonorities, composers have continued to explore other approaches to intercultural music creation. One example is American composer John Cage, whose concept of the prepared piano to simulate non-Western musical sonorities provided one solution to overcoming some of these issues. Based on Cage's concept, art music composers in Africa have reworked their approaches to aesthetically evoke their traditional music sonorities in interesting ways. 'African Pianism' is one example in which Akin Euba conceptualizes the use of the piano to simulate African music sonorities and its commonly known polyrhythmic textures. Following the same line of thought, Ugandan composer Justinian Tamusuza evokes *Baakisimba*<sup>8</sup> music by using extended performance techniques involving piano preparations in some of his pieces. The end product of these pieces not only strengthens the concept of intercultural music creativity, but

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<sup>8</sup> *Baakisimba* is a music and dance genre of the *Baganda* people of Central Uganda, traditionally performed at festivals and wedding ceremonies.

also redefines his traditional *Kiganda* music through the lens of Western instrumentation, playing techniques, and coloristic effects.

Listening to Tamusuza's compositions, it is evident that both African and Western musical influences shape his creative voice and, as such, these influences should be considered while analyzing his pieces. Supporting this perspective, Ghanaian composer, conductor and theorist Emmanuel Gyimah Labi notes that "the outward manifestation of the experiences of an individual composer ... ultimately affect his or her output."<sup>9</sup> It is logical that musicological and theoretical techniques simultaneously complement each other if a holistic analytical study of any intercultural composition is to be reached. Therefore, a biographical sketch of Tamusuza will provide the essential framework for the examination of his stylistic approach.

## 1.1 JUSTINIAN TAMUSUZA

Tamusuza was born in 1951 in Kibisi, a Ugandan village in the Mityana country. He grew up in a vibrant *Kiganda* musical environment that included a number of traditional festivities, some of which were organized by his father. The musical activities involved playing *Kiganda* drums (*Engoma*), one-stringed fiddles (*Endingidi*), xylophones (*Amadinda*), the *Kiganda* flute (*Endere*), *Kiganda* lyre (*Endongo*), as well as singing. It was through his involvement in playing some of these instruments that Tamusuza encountered the first musical influence of *Kiganda* music. At this time, Uganda was ruled by the British colonial regime, when the

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<sup>9</sup> Gyimah Labi, "Establishing an African Presence in the World of Art Music: Composer's Perspectives," *International Centre for African Music and Dance*, Panafest (1994),2.

traditional *Kiganda* culture was threatened by the influx of Western culture and urbanization that had been introduced through the church and the educational system. Through the Gregorian chant-like singing style in the Roman Catholic Church, Tamusuza acquired his first rudiments in Western music and, later on, he took his first piano lessons with Joyce Duffala, a US Peace Corps Volunteer at the time.

By the time Uganda attained independence from the British in 1962, a revival of traditional music was needed, particularly after the strong influence of Western music had undermined the *Kiganda* musical forms. Since Uganda had already embraced Western music, the revival of traditional music saw the coexistence of the two in the schools' curricula, churches, and at social and political functions. Having grown up in a Roman Catholic family, the church environment provided Tamusuza with exposure to Western hymnal singing during family prayer time and Sunday masses. This created one of the basic foundations in the composer's experience, providing a platform for his formal training in Western music at a later age.

Further, the educational system that allowed for simultaneous Western and *Kiganda* study enabled Tamusuza to fully internalize the two musical worlds that form his unique compositional voice. His high school curriculum incorporated annual inter-school music, dance, and drama competitions that included Western choral singing, sight-singing in staff notation, Western and African solo performance, Ugandan folk singing and dancing, as well as acting. While pursuing his undergraduate degree at Makerere University in Uganda, Tamusuza continued to learn Western music theory and musicianship, as well as African music performance. Moreover, having studied with South African composer Kevin Volans for his master's degree in Twentieth-Century Music at Belfast University, Tamusuza acquired

further exposure to contemporary techniques that would later enable the simulation of his traditional *Kiganda* instruments on Western instruments.

While studying with Kevin Volans, Tamasuza encountered Olivier Messiaen's *Modes of Limited Transposition*, which inspired him to write a composition that used limited pitch material. He elaborates that the first thing that came into his mind was having the composition limited to the white notes of the keyboard, and in particular, the pentachordal pitch class set reminiscent of his traditional *Kiganda* music. Furthermore, this period was one of revival, in which he felt the need to articulate his traditional music that had been undermined by the colonialists. But his approach could not separate the intertwined experiences of his traditional music and Western formal musical training. Tamasuza believed that the musical limitations of *Kiganda* music would challenge him into crafting a composition that reflected his diverse experiences and inspirations, the culmination of which was *Mu Kkubo Ery'Omusaalaba* for string quartet.<sup>10</sup>

The successful reception of *Mu Kkubo Ery'Omusaalaba* opened up more opportunities for Tamasuza, one of these being a scholarship for his doctoral training at Northwestern University, near Chicago, where he studied composition with Alan Stout. While there, Tamasuza concretized his style of blending Western classical and *Kiganda* idioms and setting them in Western classical music genres. He also continued to limit his composition style to the pentachordal pitch class set and rather continued exploring the use of *Kiganda* musical techniques. Moreover, he strengthened the conceptualization of minimalistic techniques and polyrhythmic textures as structural components of his compositional technique.

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<sup>10</sup> Interview with Justinian Tamasuza, August 3, 2012.

After completing his degree at Northwestern, he returned to Makerere University where he still teaches music theory, orchestration, music analysis, and African music performance. His musical encounters at home, in his studies and as a teacher have all shaped the unique compositional voice in his work *Mu Kkubo Ery'Omusaalaba*. This piece is featured on the 1993 Kronos Quartet's CD "Pieces of Africa," a release which hit the world charts at the time. Tamusuza has since produced a vast output of compositions in different mediums and styles: Western, African or both Western and African.<sup>11</sup>

In order to unveil the intricacies embedded in the first movement of *Mu Kkubo Ery'Omusaalaba*, an analytical methodology which fuses musicological and theoretical techniques is propounded and discussed in Chapter 2. The use and blending of *Kiganda* compositional techniques and processes with Western musical idioms in the piece are discussed in Chapter 3. While referencing the formal structure of the piece, with its melodic material and polyrhythmic textures as the driving forces, a theoretical analysis of the piece will be made in Chapter 4. Finally, Chapter 5 will provide an examination of the methodology of the study, followed by a summary of the most important dimensions that shape this study of Tamusuza's piece.

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<sup>11</sup> See list of Tamusuza's compositions in Appendix D, 92.

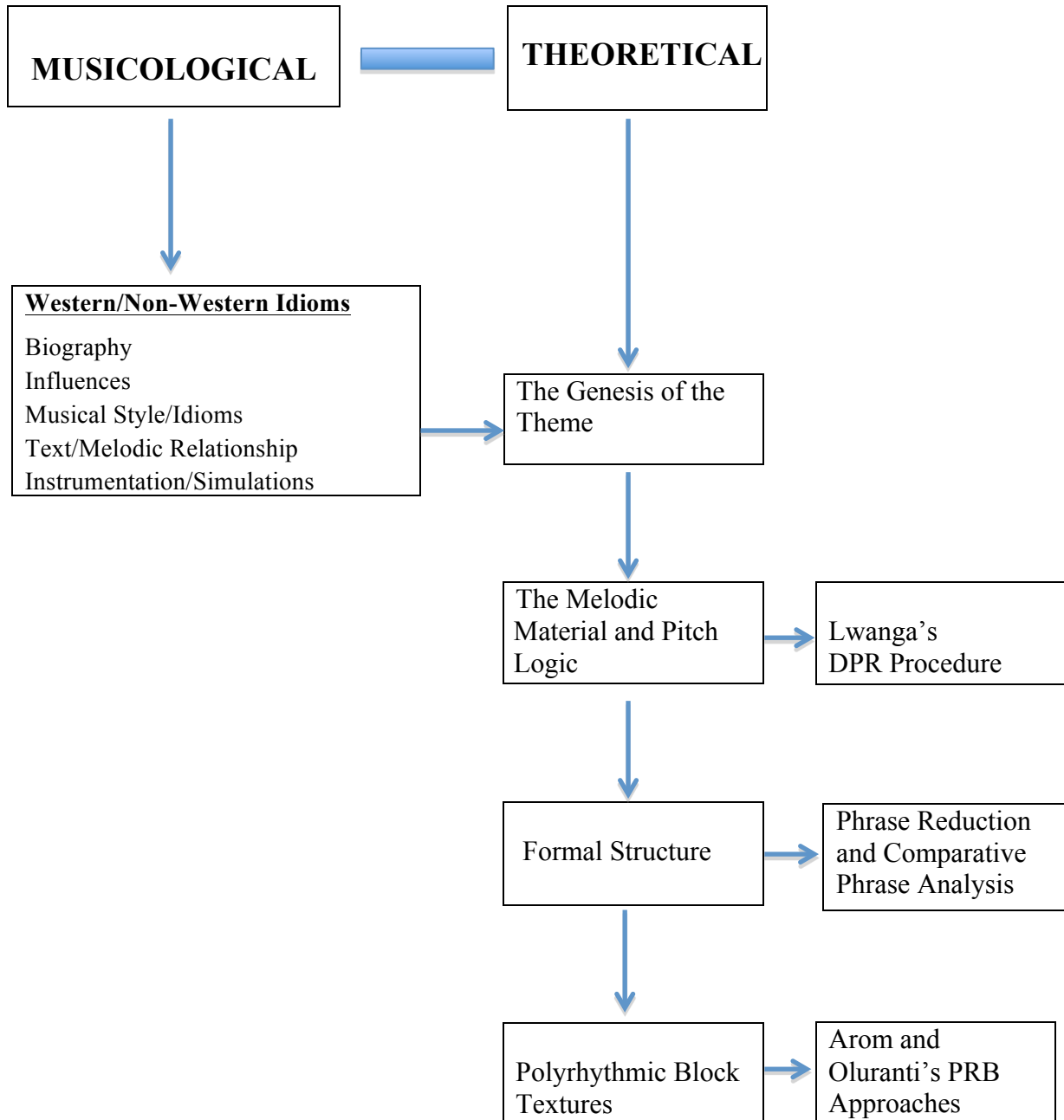
## 2.0 METHODOLOGY

The first movement of *Mu Kkubo Ery'Omusaalaba* is deeply rooted in both Western and *Kiganda* musical processes. In order to understand how these processes operate, a methodology that investigates its binary nature must be undertaken. Therefore, this study establishes a methodology that brings into account both the composer's experiences and compositional technique. Thus, the analytical scheme of the methodology is built from two dimensions: musicological and theoretical. These act as the backbone on which a deeper understanding of the composer and his compositional processes can be reached. Using the two dimensions one can reach a holistic understanding of the piece.

While I have developed a statistical technique of analyzing pitch repetition for patterns in pitch structure, my overall methodology benefits from the scholarship of Simha Arom and Ayodamope Oluranti, both of who have developed African polyphonic and polyrhythmic concepts relevant to the study of Tamusuza's string quartet. Following, therefore, is the conceptual framework of the analytical scheme, and a systematic explanation of its constituent parts and application.

## 2.1 ANALYTICAL APPROACH OF THE STUDY

**Table 1: The Analytical Scheme**



The above analytical scheme has two principle dimensions (musicological and theoretical), on which the analysis of Tamusuza's piece will be based. It is my understanding that a

musicological perspective of the piece enables the analyst to investigate both Western and non-Western musical influences informing the composer's approach. In particular, one is able to understand the concept of simulation, non-Western compositional processes, and the approach of fusing diverse musical materials. While the musicological dimension will focus on narrativizing Western and non-Western compositional dynamics, the first level of the theoretical dimension looks at the melodic system of the piece in order to understand how text shapes the melodic contour of the piece.

In addition, since the piece is deeply rooted in the repetitive nature of *Kiganda* traditional music, with limited rhythmic and pitch material, the analytical scheme of the study employs my Degree of Pitch Repetition (DPR) statistical formula whose main aim is to illustrate how pitch centricity is employed as one of the structural components in the piece. At the micro level, the DPR formula is used for two main reasons: (i) to unveil changing relationships of pitch centricity in the materials of the piece, and (ii) to highlight specific structural emphases in the main theme.<sup>12</sup>

At both the micro and macro levels, the DPR formula reveals pitch repetition as a vehicle of transformation whose degree in emphasis shifts as the piece unfolds. In this case, shifts in pitch centricity bring to our attention the transformation of repeated materials at varying levels of phrasing. At the same time, repeated pitch material unveils how Tamusuza characterizes the intervallic nature of his thematic materials and how it helps to define the overall form of the piece. Thus, calculating the DPR is:  $\frac{P^x}{TP} \times 100$  where  $P^x$  is any particular

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<sup>12</sup> Percentages of DPRs are only used to show pitch relationships and shifts in emphasis. There are other factors, of course, which affect pitch centricity. The most significant in this piece are: beginning and ending notes of phrases, highest and lowest notes of a phrase, as well as intervallic emphasis. While repetition works along with these components to determine pitch centricity, my DPR formula focuses on pitch repetition.



pitch in the pentachordal pitch class set of the melodic material and  $T^p$  is the total number of pitches in the theme, multiplied by one hundred.

Since polyrhythmic textures are essential in defining the *Kiganda* understanding of ‘climactic goals’ to a certain extent, DPR allows the comparison of how pitch centricity relates to ‘climactic’ characters of the piece. In much *Kiganda* music, ‘climactic goals’ are defined by the high polyrhythmic degrees, usually preceded by a fall in polyrhythmic intensity. Such polyrhythmic degrees accrue from polyrhythmic blocks (PRBs), which, according to Oluranti, refer to the “reduction of a polyrhythmic section showing the basic rhythmic elements of its constituent rhythmic patterns in the piece.”<sup>13</sup>

Following the DPR procedure will be the demarcation of the formal structure of the piece based on two main features: (i) the way the main theme, secondary theme or countermelodic materials are used, and (ii) the way focal pitches are employed. This will be followed by a phrase reduction and an elaboration of how *Kiganda* compositional techniques unfold within the phraseology, formal structure, and other musical components of the piece.

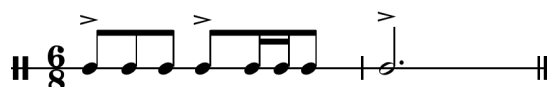
Next, the scheme provides for the analysis of polyrhythmic textures fundamental to the style and structure of the piece. At this stage, the analyst engages Arom and Oluranti’s techniques in order to determine the use of contrasting polyrhythmic degrees in defining constituent sections of the piece, pitch centricity, and other relationships that determine the general phraseology of the piece.

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<sup>13</sup> Ayodamope Oluranti, “Polyrhythm as an Integral Feature of African Pianism: Analysis of Piano Works by Akin Euba, Gyorgy Ligeti & Joshua Uzoigwe, (PhD Diss., University of Pittsburgh), 11.

### 2.1.1 Simha Arom's Approach

In his study of African polyphony and polyrhythm, Arom asserts that, “all polyphonic music requires a temporal reference unit to provide a common denominator for its parts.”<sup>14</sup> In pursuit of theoretical terminology to illuminate constituent parts in African polyphony, Arom refers to rhythmic phenomena “where the melodic parameter is neutralized, leaving only pure rhythms.”<sup>15</sup> He continues that the period, a temporal repetitive loop based on similar events, comprises a temporal framework on which all rhythmic events take place. In so doing, accents, tone colors, and durations define rhythm as a concept that deals with “sequences of auditive events.”<sup>16</sup> In the absence of tone color and duration, Arom notes that repeated regular or irregular accentual marks may be used to determine rhythm.



**Example 1: Rhythmic Accentuation**

He continues that in the absence of accents or duration, regular or irregular contrasts in tone color are the only determinant of rhythmic activity.



**Example 2: Rhythmic Tonal Color**

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<sup>14</sup> Simha Arom, *African Polyphony and Polyrhythm*, (Cambridge, UK: Cambridge University Press, 1985), 179.

<sup>15</sup> *Ibid*, 229.

<sup>16</sup> *Ibid*, 202.

Also, in the absence of accents and tonal colors, Arom notes that duration, the succession of unequal values, remains a possible rhythmic determinant.

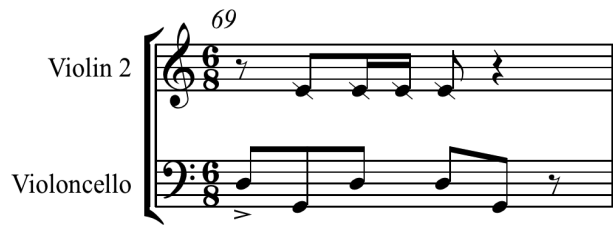


### Example 3: Rhythmic Duration

As such, the simultaneous superimposition of any two or more rhythmic markers engenders what Arom calls a polyrhythmic block (PRB) or formula, each of which is defined by the way rhythmic markers are distributed and interact. With the internal structure of the formula (the polyrhythmic block) being hard to analyze as a whole, Arom formulates a systematic approach, which stems from the location of rhythmic markers contained within the polyrhythmic block. This is followed by the determination of the total number of positions (number of minimal operation values) in the formula<sup>17</sup> and lastly, the listing of marked rhythmic positions. The results reveal two things: first, the positions of the rhythmic coincidence in the polyrhythmic block and, second, the points where rhythmic positions are independent as a result of not coinciding with other rhythmic markers. Illustrating the concept of polyrhythm is a reduction of m.69 (violin 2 and cello) from the first movement of Tamusuza's string quartet, followed by a polyrhythmic block reduction.

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<sup>17</sup> Minimal operation values refer to smallest subdivisions of the pulse but not applicable to tuplets.



**Example 4: Violin 2 and Cello in m.69**

1	2	3	4	5	6	7	8	9	10	11	12
		■		■	■	■					
Δ		■		■		■		■			

**Figure 1: Polyrhythmic Block (PRB) of Example 4**

The polyrhythmic block reduction of Example 4 yields the following observations:

1-The PRB has three main layers. On the very top, is the number of sixteenth notes (the minimal operational value) in the measure.

2-The 12 sixteenth notes of the second violin are in the second row, followed by the 12 sixteenth notes of the cello in the bottom row.

3-The second violin has four attacks (squares) in positions 3, 5, 6, and 7 and the cello has five, the first (triangle) being an accent in position 1, and the other four being duration/attacks in positions 3, 5, 7, and 9.

4-There is only one interweaving position (lack of rhythmic coincidence) in the second violin in position 6, and two in the cello in positions 1 and 9.

5-There are three coincidences of rhythmic marks appearing in positions 3, 5, and 7.

From the above observations, Arom's approach informs this study with analytic techniques of unveiling intricate constituents of polyrhythmic blocks that not only accompany the thematic material in Tamusuza's quartet, but also play a very important role in defining the structure of the piece. Whereas it may not be easy for one who has not grown up in a *Kiganda* musical background to hear the piece in terms of PRBs, Arom's approach provides visual evidence of the theory embedded in the interplay of rhythm as a driving force of forward motion in this repetitive piece.

### 2.1.2 Ayodamope Oluranti's Approach

Building upon Arom's concept of polyrhythmic blocks, Oluranti coined the term polyrhythmic degree (PD) for "the quantity of polyrhythm in a PRB-the measure of non coincidences between the constituent *rhythmic markers* of attendant rhythmic patterns within a PRB."<sup>18</sup> As a way of determining the rate at which PDs are employed to define structure, Oluranti further provides a statistical formula whose applicability extends to PRBs, which do not feature consistent ostinato patterns, and yet, against which other contrasting rhythmic materials can be superimposed. Thus, his formula proceeds as follows:

$$(a) \quad PD^1 = n^1/n^2 \times 100\%$$

$$(b) \quad PD^2 = n^3/n^4 \times 100\%$$

$n^1$  is the number of interweaving positions in rhythmic figure(s) superimposed on an ostinato line and  $n^2$  is the number of interweaving positions possible within an ostinato line. In the

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<sup>18</sup> Oluranti, 14.

second formula,  $n^3$  is the number of interweaving positions in a specific PRB and  $n^4$  is the number of positions with at least one *rhythmic mark* in a specific PRB.

Example 5: Violin 1 and Cello Excerpt (mm.173 to 176)

Example 5 is an excerpt in which the minimal operational value is the sixteenth note. With four measures, each with twelve sixteenth notes, there are forty-eight minimal operation values from which PRBs occur.

1	2	3	4	5	6	7	8	9	10	11	12
■		■	■		■	■		■	■	■	
■	■		■	■		Δ					

Figure 2 (a): PRBs of m. 173

13	14	15	16	17	18	19	20	21	22	23	24
■		■	■		■	■		■	■	■	
■	■		■	■		Δ					

Figure 2 (b): PRBs of m. 174

25	26	27	28	29	30	31	32	33	34	35	36
■		■	■		■	■		■	■	■	
■	■		■	■		Δ					

**Figure 2 (c): PRBs of m. 175**

37	38	39	40	41	42	43	44	45	46	47	48
■		■	■		■	■		■			
■	■		■	■		Δ					

**Figure 2 (d): PRBs of m.176**

Each ostinato cycle in the cello creates seven possible chances for a polyrhythmic event to occur. In m.173, chances are seen in positions 3, 6, 8, 9, 10, 11, and 12. In m.174, polyrhythmic chances fall in positions 15, 18, 20, 21, 22, 23, and 24. Whereas polyrhythmic chances in m.175 are found in positions 27, 30, 32, 33, 34, 35, and 36, those in m.176 are seen in positions 39, 42, 44, 45, 46, 47, and 48. With each ostinato cycle, therefore, seven PD values are possible:

**Table 2: PD Values in each Ostinato Cycle**

1	$1/7 * 100$	14%
2	$2/7 * 100$	28%
3	$3/7 * 100$	42%
4	$4/7 * 100$	57%
5	$5/7 * 100$	71%
6	$6/7 * 100$	85%
7	$7/7 * 100$	100%

The PD of the above PRB can be deduced as the total number of interweaving positions in the top rhythmic event ( $n^1$ )-18 (in positions 3, 6, 9, 10, 11, 15, 18, 21, 22, 23, 27, 30, 33, 34, 35, 39, 42, and 45), divided by the number of interweaving positions in the ostinato line ( $n^2$ )-28, multiplied by 100. Thus, the rate of PD in the PRBs of mm. 173 to 176 is 64%.

In moments of the piece where the structure is defined by both the melodic and polyrhythmic material, Arom's and Oluranti's operational procedures will be employed in order to individualize characteristic behaviors in particular sections of the piece. Moreover, PD data will, as according to Oluranti, be plotted on PD graphs to provide a platform for statistical and musical conclusions. The complete application of these procedures will be done in Chapter 4, following a more detailed exploration of the musicological dimensions.



### **3.0 MU KKUBO ERY'OMUSAALABA: A MUSICOLOGICAL PERSPECTIVE**

In his string quartet *Mu Kkubo Ery'Omusaalaba*, Tamsuza amalgamates traditional *Kiganda* musical materials with Western idioms. He employs minimalistic techniques such as repetition, imitation, limited harmonic vocabulary, and repetitive ostinato textures as driving forces in the piece. In articulating his *Kiganda* musical influences in art music composition, Tamsuza not only uses a *Kiganda* title for the piece but also employs traditional *Kiganda* musical materials such as the pentachordal pitch class set, a *Kiganda* theme, the simulation of traditional *Kiganda* instruments, the use of a limited range, as well as compositional processes such as: call and response reminiscent of the *Kiganda* vocal style, the superimposition of a theme against an accompanying ostinati, the superimposition of a countermelody against a main theme, the use of hemiola, as well as the implementation of polyrhythmic blocks as a defining parameter of forward motion.

#### **3.1 THE TITLE AND OPENING THEMATIC MATERIAL**

Both the title and thematic materials of the first movement of Tamsuza's work are adopted from Ugandan composer Joseph Kyagambiddwa's *African Oratorio*.<sup>19</sup> This piece was premiered in Rome in 1964 during the canonization of the first twenty-two Ugandan martyrs

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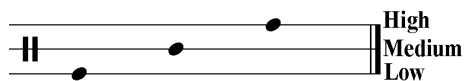
<sup>19</sup> Joseph Kyagambiddwa, *Uganda Martyrs Oratorio: Music and Libretto*, (s.l.:s.n.,1964), 20.

who were murdered by *Kabaka* (king) Mwanga between 1885 and 1887. Of the twenty-two songs in the oratorio, each is dedicated to a single martyr. *Mu Kkubo Ery'Omusaalaba* is song #13 whose inspiration arose from Tamusuza's experience as director of a Roman Catholic choir-*Cachemco*<sup>20</sup> in the late 1970s. The stanza from which the thematic material of *Mu Kkubo Ery'Omusaalaba* is constructed has four lines:

**Table 3: Text and Intonation Levels in Luganda**

Line	Text	Translation	Levels of Intonation
1	Mu Kkubo Ery'Omusaalaba	On the way of the cross	Medium, High, Low
2	Tugoberera Omukama	We follow the Lord	Medium, Low
3	Yezu e Kalivaaliyo	Jesus at Calvary	High, Medium, Low
4	Naffe Okkutibwa Nga	To our execution	Low

As a tonal language, *Luganda* has three main tonal levels: low, medium and high. Each of these levels contributes to the phonetics of the language in that the tonal and often rhythmic alteration of any syllable, word or phrase can change its original meaning.



**Example 6: The three *Luganda* tonal levels**

<sup>20</sup> *Cachemcho* is a Ugandan Roman Catholic choral group.

Using an example of the word *Kkubo* (road), we could construct different meanings depending on the intonation. From high to medium, the intended word is achieved. However, if the order is reversed, then discrepancies in the meaning arise, as shown in the examples below:



**Example 7 (a): Intonation of *Kkubo* (“road”)**



**Example 7 (b): Intonation of *Kkubo* (“among them”)**

Although some *Luganda* words involve the three intonation levels in constructing meaning, it is also common in the linguistic structure for a combination of more than one word to have only one intonation level. One similarity among all four lines of *Mu Kkubo Ery’Omusaalaba* is their low ending. Apart from the fourth line, which has only one intonation level, line one has a rise and fall contour, and lines two and three both share a falling contour. These contours are similar to those of the thematic material. This is because in the *Kiganda* style of singing that informs the theme of this piece, the melody is influenced by the tonal nature of the *Luganda* language.

Peter Cooke qualifies this assertion when he states that, “No musicologist can study *Ganda*<sup>21</sup> instrumental music practice for long, if he lives in that region, before discovering that all instrumental pieces he hears are in fact rendering vocal compositions or are in the case of drumming, inseparably bound up with songs and other forms of speech communications.<sup>22</sup> Illuminating this argument, Kofi Agawu, in his article “African Music as Text,” notes that “although music and language are finally independent semiotic systems, they are bound together by several ties, and that exploring them in tandem may yet deepen our understanding of [compositional] creativity.”<sup>23</sup> He cites an example of the Northern Ewe of Ghana whose throat singing obscures word meaning. However, Agawu considers music a more articulate medium through which the intended meaning can still be constructed. In addition, A. M Jones asserts that “in tonal languages, the tune must as far as possible agree with the rise and fall of speech tone.”<sup>24</sup> This assumption means that the melodic contour is only an approximation of speech intonation. Similarly, Lazarus Ekwueme notes that “the tonal contour of words *determines* the melodic contour of the music to which the words are sung.”<sup>25</sup> Moreover, Kwabena Nketia asserts that “while musical factors shape the basic design of songs, the details of internal structure are conditioned by the texts to which melodies are set.”<sup>26</sup> As such, it is imperative not to undermine the genesis of the thematic material, the text, as informing the pitch logic of Tamasuza’s quartet. Rather, it is essential to take a close look at how the above four *Kiganda* intoned lines map onto the contour of the main melody.

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<sup>21</sup> *Ganda* is a synonym for *Kiganda*.

<sup>22</sup> Peter Cooke, “Ganda Xylophone Music: Another Approach,” *African Music*, vol.4, no.4 (1970),62.

<sup>23</sup> Kofi Agawu, “African Music as Text,” *Research in African Studies Literatures* vol.32, no.2 (2001),16.

<sup>24</sup> A. M. Jones, *Studies in African Music 2*, (London New York: Oxford University Press, 1959), 246.

<sup>25</sup> Lazarus Ekwueme, “Linguistic Determinants of Some Igbo Musical Properties,” *Journal of African Studies*, vol.1, no.3 (1974),349.

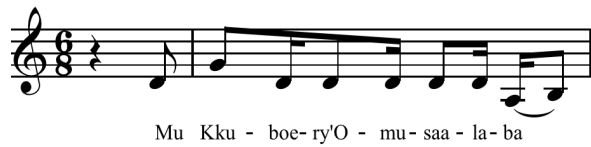
<sup>26</sup> Kwabena Nketia, *The Music of Africa*, (London UK: W.W. Norton & Company, 1974),187.

### 3.1.1 Relationship of the Text to the Thematic Material

Having seen the significance of *Luganda* intonation on meaning, Tamusuza, like Kyagambiddwa, maintains the intonation of each of the words for easy identification by allowing the text to dictate the melodic contour. Below is a rhythmic contour and transcription of each of the four lines of the opening thematic material:



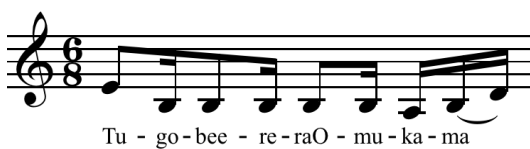
**Example 8(a): Spoken intonation of the first line**



**Example 8(b): Vocal/instrumental intonation of the first line**



**Example 9(a): Spoken intonation of the second line**



**Example 9(b): Vocal/instrumental intonation of the second line**



**Example 10(a): Spoken intonation of the third line**



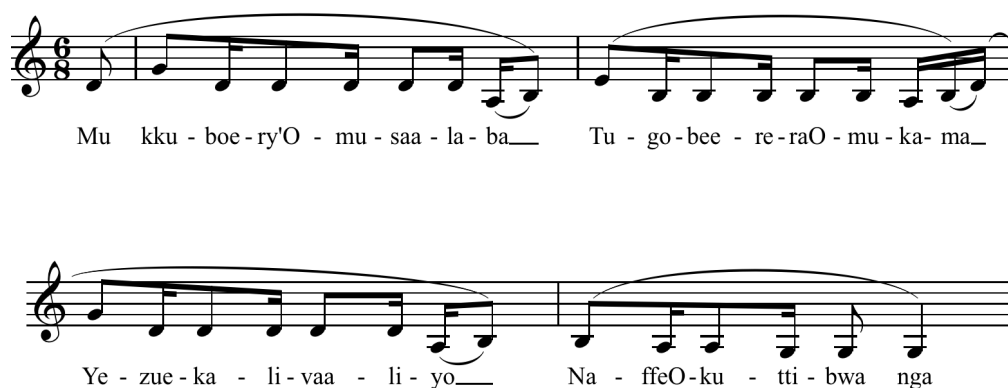
**Example 10 (b): Vocal/instrumental intonation of the third line**



**Example 11(a): Spoken intonation of the fourth line**



**Example 11(b): Vocal/instrumental intonation of the fourth line**



### Example 11(c): The Four Vocal Lines of the Opening Thematic Material

According to the pitch range of the piece, G (above middle C) represents the high intonation, D and E are the medium, and A, B, and G (below middle C) are the lowest in range. Consequently, Example 11(c) is a 4-bar phrase of four vocal lines adapted as the opening of the theme. The tie on the last syllable of each of the first three phrases is reflective of the microtonal nature of ending phrases in *Kiganda* vocal styles.<sup>27</sup> While these reflections only surface in vocal music, they are not used in speech. In his string quartet, Tamasuza mimics the character of the sung version in two ways: (i) by retaining the notation of the microtonal reflections absent in *Luganda* speech and (ii) by separating the second beat into two independent groups so as to give impetus to the closing rhythmic figure in each of the first three phrases. Such impetus is what defines the *Kiganda-Ggono* style of singing, which Tamasuza brings to our attention when he directly quotes the theme of *Mu Kkubo Ery'Omusaalaba* as follows:

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<sup>27</sup> Microtonal Singing in *Kiganda* music is referred to as *Eggon*.



**Example 11(d): Opening 4-Bar Thematic Material**

### **3.2 INSTRUMENTATION AND KIGANDA STYLISTIC SIMULATION**

Another *Kiganda* musical idiom in the piece is the characteristic behavior of each of the instruments. While on the surface the instrumentation of Tamusuza's quartet appears Western, each of the four instruments bear an individual character deeply rooted in the simulation of the *Baakisimba* instrumental music of the *Baganda*. *Baakisimba* music plays a significant role in defining the *Kiganda* cultural and musical heritage. The *Kiganda* instrumental ensemble is composed of four drums: *Embuutu* (big drum), *Empuunyi* (medium drum), *Engalabi* (long drum), and *Nankasa* (small drum). Two other instruments that supplement the drum ensemble are the *Ensaasi* (shakers) and the *Endingidi* (one-stringed bowed fiddle). Whereas the former adds a rhythmic-percussive effect to the ensemble, the latter plays a melodic role. In fact, whenever *Kiganda* music involves singing, the *Endingidi* introduces the melody as a way of intoning the piece. Since it is a weak instrument by nature, similar to the Western strings, the *Endingidi* requires at least three players to be heard over the drums.





**Figure 3(a): Engalabi, Nankasa, Empuunyi, and Embuutu drums (from left)**



**Figure 3(b): Endingidi and Ensaasi**

In the drum ensemble, the *Embuutu* is the main drum and is played with two hands. Its rhythms are very repetitive and cyclical in nature, recurring most times with subtle modifications, as the player may deem necessary. The *Empuuyi* provides a constant beat every first and second count, on which the other instruments base their tempo and motifs. The *Nankasa* is the highest intoned and is used as a signal drum for rhythmic variations in the instrumental ensemble. In addition, the *Nankasa* colors the ensemble sound with syncopated rhythmic ostinati. The *Engalabi* is next lowest in pitch to the *Nankasa* and, just like the *Ensaasai*, it is used to employ decorative rhythmic effects to which dancers, if available, react.

In simulating these traditional instruments, Tamasuza reflects the festive nature of interaction among the *Kiganda* musicians and their instruments. Employing *sul ponticello* (near the bridge) in the two violins and the viola evokes the sonic world of the *Endingidi* (one-stringed tube fiddle). For the sound of the shakers, the violist in mm.177 to 183 plays maracas. At the same time, the viola doubles the role of the *Nankasa* whenever it executes pizzicato effects (mm.41-43, 48-51, and 187-193). The *Embuutu* and *Emuunyi* sound worlds are rhythmically simulated in the pizzicato lines of the cello, which doubles the two roles. The G on the first and second beats of mm.1-170 and 172-240, and the C on the first and second counts of mm.134-169, represent the *Empuunyi*. Moreover, the entire pizzicato cello line serves as *Embuutu* drum simulations. For the percussive sound of the *Engalabi*, the three strings gently slap the bodies of their instruments as seen in mm.164-170 in the first violin, mm.17-33, 40-43, 48-71, 161-163, and 183-205 in the second violin, and mm.125-133 and 222-240 in the viola.

Specific to *Nankasa* drumming style is the hemiola that comes into effect whenever a two-beat pattern in simple meter is juxtaposed against another two-beat pattern in compound meter. For this to happen, the two-beat pattern of the former meter is usually preceded by a sixteenth-note on a strong beat, followed by the first attack of the two-beat pattern. The effect of this is usually a staggering count of two against a steady compound meter. This simple time rhythmic pattern is the most defining of the *Nankasa* drum to the extent that its absence in the ensemble creates a lacuna in the polyrhythmic texture. However, it is well known for its hemiola effect when playing against the other members of the drum family. Thus, among other roles in the piece, the hemiola effect is the most defining of the presence of the *Nankasa* in Tamusuza's piece.

### **3.2.1 *Kiganda* Vocal Styles and Compositional Processes**

The use of countermelodies beneath the main melodic theme is especially common in traditional folk music of the *Baganda*. The resultant harmonies of such encounters are major and minor thirds, major seconds, major sixths, perfect fourths and fifths. Of these, however, countermelodic singing in *Kiganda* music is dominated by the perfect fourth and perfect unison, leaving the major second, third, and sixth as interruptions to the perfect fourth in moments where an ascent or descent occurs in the melodic contour. In order to elaborate such overlapping harmonic parallelism in *Kiganda* musical processes, therefore, Tamusuza employs two countermelodic subjects juxtaposed either beneath the main theme or secondary theme. This will be further discussed regarding the phraseology of the piece in Chapter 4.

Furthermore, “call and response” is a very common characteristic feature not only particular to *Kiganda* folk singing, but also in cultures within and beyond Africa. During this vocal process, a soloist leads the chorus by making certain calls to which the chorus responds. Technically, each of the roles has their own melodic material, the combination of which becomes like any usual verbal conversation where each participant responds to the other in order to take the conversation further. The two roles may or may not overlap. To elaborate this process in the first movement of his quartet, Tamusuza employs a call and response process in both the theme and the secondary thematic materials.

Within the setting of a whole tone/minor third pentatonic scale, folk singing among the *Baganda* involves the unfolding of a narrative through a sequence of songs with different melodic implications. In the absence of modulation and other form-defining parameters of Western musical styles, the narrative and its ensuing melodies in *Kiganda* folk music provide a sense of forward motion. The introducing song becomes the main theme, and then the subsequent songs, the secondary themes. Having experienced folk singing, and the desire to articulate its influence on his compositional style in *Mu Kkubo Ery’Omusaalaba*, Tamusuza employs a secondary theme as one of the parameters of continuity.

In traditional *Kiganda* music, the most important role for instruments is the demarcation of new sections. Whereas signaling passages are used to announce the start or end of a section or the entire song, bridge passages of ‘pure rhythm’ are used to connect different sections. The two become structural devices, especially in instrumental music with no text to delineate the form. The same strategy is similarly employed in Tamusuza’s piece.

Because *Mu Kkubo Ery’Omusaalaba* is an instrumental piece, the above-discussed vocal processes are seen in the simulation of three *Kiganda* tube fiddles: *Akatamba*,

*Ekitamba*, and *Olutamba*, whose open string tunings differ from each other. For example, the open string of *Akatamba* is a major third above the focal pitch (tonic). The *Ekitamba* is a major second below the tonic, and the *Olutamba* is a major sixth lower than the *Akatamba*. Thus, the *Akatamba* is the highest in pitch, the *Olutamba* the lowest and the *Ekitamba* is in the middle.

In Tamususza's piece, while the theme and secondary theme are *Akatamba* simulations, the counter-melodic materials that predominantly appear in the second violin are simulations of *Ekitamba*. Thus the two melodic roles become the medium through which the above-discussed *Kiganda* vocal patterns are manifested in a non-verbal fashion. Whereas the *Olutamba* does not specifically imply any melodic vocal simulations in Tamususza's piece, it is implicitly employed in non-melodic repetitive passages for coloristic effects.<sup>28</sup>

### 3.3 RANGE OF THE PIECE

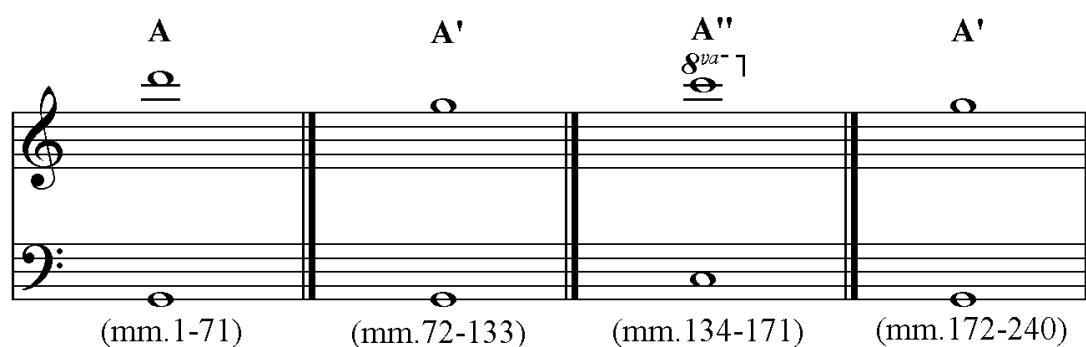
In both vocal and instrumental *Kiganda* music, the ranges are usually limited to a span of one to three octaves depending on the type of instrument or genre. Similarly, the *Embuutu*, *Empuunyi*, and *Engalabi* simulations in *Mu Kkubo Ery'Omusaalaba* are limited to a range of an octave. However, the cello transcends this limit in a few ostinato passages (mm.115-119 and mm.195-203) where it expands to the D above the bass clef. Likewise, the simulation of the *Akatamba* in the main theme transcends its limit, usually by an octave. This is one of the moments in which Tamususza clearly makes use of his Western influences. However, while

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<sup>28</sup> A good example is seen in the first violin (mm.556-71).

exploiting instrumental ranges beyond the *Kiganda* norm, he does not go beyond four and one-half octaves.

Specific to the first movement of Tamusuza's *Mu Kkubo Ery'Omusaalaba* are two limited ranges that define large sections. The first section is limited to three and one-half octaves (G1-D5), the second to three octaves (G1-G4), the third to four octaves (C2-C6) and the fourth to three octaves (G1-G4). The range of the third section is a transposition up a perfect fourth from that of the second section, and an expansion by an octave. The reprise of the second section as the fourth and concluding section restores its previous three-octave range. The way the range is distributed in the four sections of the piece has a fall-rise-fall contour, which attests to the fact that Tamusuza wanted his theme and variation to unfold over four main transforming stages (sections).



**Example 12: Range of Each Section**

The expansion of the range in section A happens in the first violin (mm. 5-8) with the execution of harmonics on D (outside its range). The same coloristic effect in the same instrument appears again in the A'' section (mm.146-149), also outside its range. The way

Tamusuza distributes the overall range in the piece becomes one of the parameters for the demarcation of sections.

## **4.0 ANALYSIS OF THE FIRST MOVEMENT OF MU KKUBO ERY'OMUSAALABA**

Using the analytical scheme developed in Chapter 2, this chapter proceeds with an examination of the thematic material in order to ascertain its pitch logic, structure, and treatment. This is followed by an analysis of both the formal structure and the phraseology of the piece. While looking at the phraseology, the function of the secondary theme and countermelodic materials will be examined. Finally, this chapter will conclude with the identification, calculation, and analysis of the relationship of PRBs to the structural organization of the piece.

### **4.1 THE OPENING 4-BAR THEMATIC MATERIAL**

We previously saw how the melodic contour of the thematic material was derived from the text. The example below is the opening 4-bar thematic phrase showing the pitches of each of the four short phrases.



**Example 13(a): Opening 4-Bar Thematic Material**



The pitch language of the piece is composed of a five-note pitch class set: G, A, B, D, and E (0, 2, 4, 7, 9). It is transposed up a perfect fourth from mm.134-171 and then returns to its original state from m.173 to the end of the piece. Because of the transposition ( $T_5 = C, D, E, G, \text{ and } A$ ), there is a C for the first time in the piece—the only new pitch class. The impact of C at this moment in the piece is to delineate a new section, however repetitive or similar the material may be. The return to the original pitch class set defines the third section of the piece.

The thematic material is composed of three main intervals: the major second, minor third and perfect fourth. Being reminiscent of the traditional *Kiganda* harmonic vocabulary, the perfect fourth is very prominent in the theme. It announces the first, second and third phrases, as well as melodic jumps that connect certain phrases.

Working with limited pitch resources is a compositional challenge for which Tamusuza employs a variety of compositional techniques and processes in order to keep the piece interesting within its repetitive nature. While elaborating the theme, repetition of notes, recurrence materials as variations and transpositions, the use of polyrhythmic textures, phrase contractions and expansions, and timbral, registral, and dynamic manipulations are the most common compositional devices employed for coloristic variety and formal definition.

#### **4.1.1 DPR as a Structural Parameter**

In the opening four measures of the piece, Tamusuza introduces the pitch language of the piece when the opening thematic material is presented twice in unison. After this, the main theme recurs in dialogue in the second and fourth sections. In calculating and quantifying the degree of pitch repetition (DPR), first in the opening thematic material, we are able to

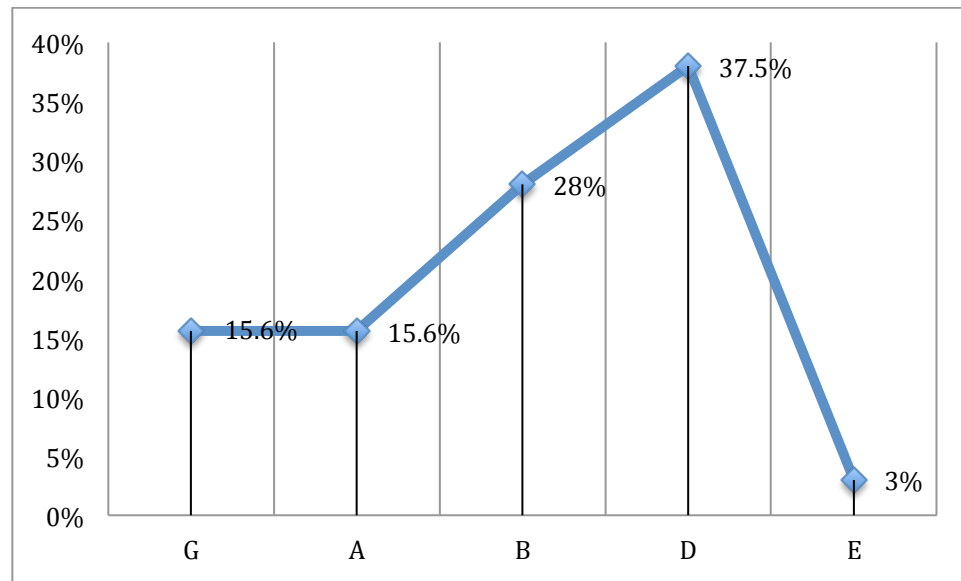
establish the foundation on which pitch centricity is based. Upon this foundation, intensity of repetition in terms of percentages can be quantified to illustrate pitch shifts as the process of repetition and transformation takes course. In addition, we are able to examine the extent to which DPR defines the thematic structure and, later on, the polyrhythmic block textures. At the same time, we are able to assess any shortcomings due to contrasting pitch functionality, especially in the opening thematic material, regardless of the rate at which repetition occurs.

In each case, the DPR will be arrived at by taking the number of times each of the pitches is represented in the material under question, divided by the total number of notes therein, and multiplied by 100. Thus, if the total number of pitches (notes)/chances of repetition to occur in the opening 4-bar thematic material (m.1-4) is 32, then the degrees of pitch repetition are:

**Table 4: DPR Calculations in the Opening 4-Bar Thematic Material**

<b>Pitch</b>	<b>Calculation of DPR</b>	<b>Result</b>
<b>G</b>	$5/32*100$	<b>15.6%</b>
<b>A</b>	$5/32*100$	<b>15.6%</b>
<b>B</b>	$9/32*100$	<b>28%</b>
<b>D</b>	$12/32*100$	<b>37.5%</b>
<b>E</b>	$1/32*100$	<b>3%</b>

The DPR in the thematic material can also be represented on a chart as below:



**Figure 4: DPR Graph of the Opening Thematic Material**

D is the most repeated of all notes (37.5%), followed by B (28%), G (15.6%) and A (15.6%). Although E (3%) is the only pitch used once in the opening thematic material, we see its structural importance in maintaining the rise-fall melodic contour and establishment of rhythmic emphasis. The predominance of B and D form the minor third that occurs at phrase breaks. B and D act as pivot notes on which the entire pitch class set balances. At the same time, it is above the two (B and D) that the perfect fourth, an important interval in the piece, is constructed. Whereas the D provides upbeats to the first and third phrases, the B starts the fourth phrase, and at the same time closes the first, second, and third phrases.

The second phrase is a modified transposition of the first phrase down a minor third and the third phrase is a repetition of the first phrase. Thus, based on repetition, transposition

and contrast, the structure of the opening thematic material is: a, a', a, a''.<sup>29</sup>

In its *Kiganda* structure, the theme of *Mu Kkubo Ery'Omusaalaba* is composed of two 4-bar phrases sung in dialogue. In his quartet, Tamasuza delays the second 4-bar phrase by seventy-five measures. However, when it appears as a 5-bar phrase in the viola (mm.76-80) for the first time, we hear it as a thematic variation in dialogue.



**Example 13(b): 5-Bar Thematic Response**

Its second and fourth sub-phrases maintain strong pitch and rhythmic relationships to the opening material, to the extent that we hear the two coherently linked in dialogue. What distinguishes it however, is its triadic opening and repetition with metric alteration in the third sub-phrase.

The thematic response reduces the prominence of D and rather shifts it to B (38%). At the same time, G (23%), which is tonicized at the start of the first and third sub-phrases and close of the response, begins to highlight a shift to G. However, this shift does not happen until the third section. In the absence of the theme in section A'', the DPR in the secondary theme (mm.146-150 in the second violin) shifts our attention to G (47.6%). In confirmation of this assertion, the DPR of the countermelody (mm.134-138 in the second violin) gives us an

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<sup>29</sup> Interestingly, this same structure is later on reflected in the overall form as will be further discussed in the section on formal structure and phraseology of the piece.

even higher result (52%). Moreover, the repeated G in the cello also asserts G as the focal point, a character maintained in the first, second and fourth sections of the piece.

As the piece progresses towards its closure, we see an increase in pitch repetition of G (45%) in the very last responsorial thematic phrase (mm.236-240) of the fourth section.



### Example 13(c): The Final 5-Bar Thematic Response

The 25% increase in DPR of G not only extends its shift in emphasis from B (second section), but also asserts it as the focal point of the piece.

But one question that remains to be answered has to do with the prominence of the B in the response? Having noted the prominence of D in the opening 4-bar phrase and that of G in the last 5-bar phrase, as well as its frequent reference in the ostinato lines of the cello, the origin of the perfect fifth in the accompanying role becomes unveiled. But then the frequent repetition of the B in the response draws attention towards the triadic nature of the response.

Through the process of repetition and transformation, Tamusuza shifts pitch centrality as the piece progresses. In fact, this parameter becomes a structural determinant in the piece. The DPR formula clearly unveils a shift of emphasis from D (37.5%) in the first section of the piece to B (38%) in the second section. When the piece gets transposed a perfect fourth above G to C in the third section, G (23%) becomes the center of attention. G is further strengthened when its DPR expands by 25% from the previous G focal point (section A'), to a DPR of 45% as the piece approaches its end.

Therefore, the shift in pitch centricity brings about the following observations: (i) that D being the most prominent in the first section establishes the tension embedded in pitch repetition of the piece, (ii) that B being the most repeated in the second section creates a relationship of the minor third with D, and (iii) that G of the final responsorial phrase relaxes the aforementioned tensions embedded in the D and B, completing the G major triad and firmly establishing G as the tonic.

Reflecting on these three important pitch shifts at a macro level, we notice that D, B and G are the primary pitches whose frequent repetition holds clearly defined and significant functions in the theme and ostinato figures of the piece. The perfect fourth (D and G) is the most prominent in shaping the opening of the first, second and third sub-phrases of the opening theme, as well as the closure of the second and third sub-phrases of the thematic responsorial material. In addition, the G and D form the perfect fifth, which is important in simulating the *Embuutu* accompaniment role mostly in the cello. Thus, pitch centricity becomes an important structural marker of the piece at both micro and macro levels.

#### **4.1.2 Other Characteristics of the Opening 4-Bar Thematic Material**

The melodic material plays a very important role in defining the structure of the piece. This is seen through its recurrences and the particular forms it takes. For example, after its strong introduction in unison (repeated twice) in the first four measures, the theme recurs in the first violin in mm. 48-51, 72-75, and 82-86. In addition, varied fragments of the first two phrases of the theme appear in the first violin in mm. 104-106 and 107-109.



**Example 14(a): Thematic Variation/Transposition in Violin 1 (mm.48-51)**



**Example 14(b): Thematic Expansion in Violin 1 (mm.82-86)**



**Example 14(c): Repeated and Varied Thematic Fragments**

In the first unison statement (mm.1-4), the thematic opening has four measures of which the third is a restatement of the first. Likewise, the recurrence of the theme in Example 14(a) maintains the same length and structure as the original theme, but in a higher register than it first appeared. While maintaining the principle of repetition within the same length, Example 14(a) is a clear variation of the theme with the use of structural notes separated by eighth-note silences. In this example, we also note for the first time a descending leap of a minor sixth in the first and third phrases. Particular to Example 14(c) is the expansion of the theme by sustaining the B (m.82-83) of the first violin, making the variation five measures long. This expansion technique is used extensively in the piece. In Example 14(c), another variation now six measures long, the first and second phrases of the theme are varied in pitch and rhythm, giving prominence to G in m.104 and D in m.105. Noteworthy is the repetition strategy where the last two phrases in this variation are repetitions of the opening two.

In *Kiganda* vocal music, question and answer dialogue between female and male vocal voices is an important stylistic idiom, which Tamusuza translates to the first violin and viola (using thematic material), and first violin and cello (using secondary thematic material). The response may or may not overlap its question statement. Instances of overlapping take place in mm.96-97, 100-103, 106-107, and 109-102. Particular responses that do not overlap their question statements occur in mm. 76-80 and 87-93.



**Example 15(a): Viola Response (mm. 76-80)**



**Example 15(b): Viola Response (mm. 87-93)**

While Example 15(a) is a 4-bar response, we see a similar expansion technique to that of the thematic opening applied to Example 15(b). The 4-bar response transforms into a 7-bar phrase by sustaining the last note of mm.1, 3 and 6. Once again, the structural notes are stripped of their immediate repetition and re-ordered to bring out the triadic nature of the response.

Another variation of the response in the viola is fragmentation. This happens in mm. 96-97, and mm.106-107.



**Example 15(c): Fragmented Response**





**Example 15(d): Fragmented Response**

The fragment in Example 15(c) is similar to the first two measures of Example 15(a). Although the two maintain the same length, their intervallic and rhythmic features contrast them. In Example 15(c), for example, we see for the first time a responsorial fragment being stripped of its opening triadic nature. Instead, the omission of the B leads to an intervallic expansion. Thus, the perfect fifth becomes the defining interval of this fragment.

## 4.2 FORMAL STRUCTURE

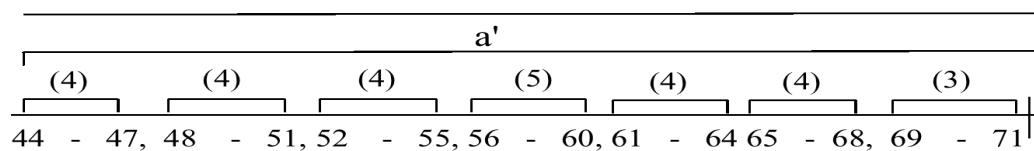
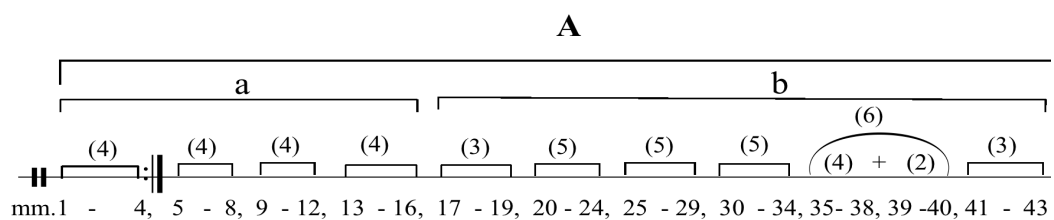
A number of parameters are involved in demarcating the formal structure of any music composition. In *Mu Kkubo Ery'Omusaalaba*, such parameters include: range, focal points (G and C), thematic treatment, countermelodic material, color, and polyrhythmic block textures. However, the treatment of the theme, secondary theme, countermelody and the polyrhythmic block textures are the most significant. Because of the way individual materials recur and are transformed, the piece is divided into four sections of variations. Thus, what follows is a table outlining characteristic parameters as they occur in each of the four sections.

**Table 5: Formal Divisions of the First Movement of *Mu Kkubo Ery'Omusaalaba***

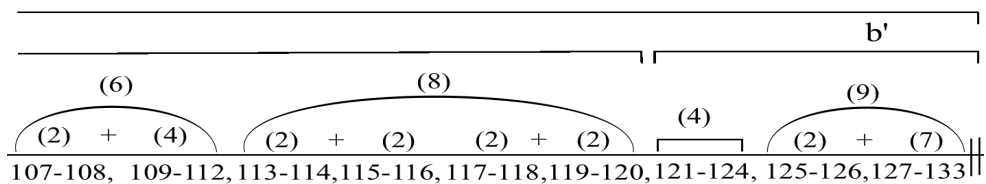
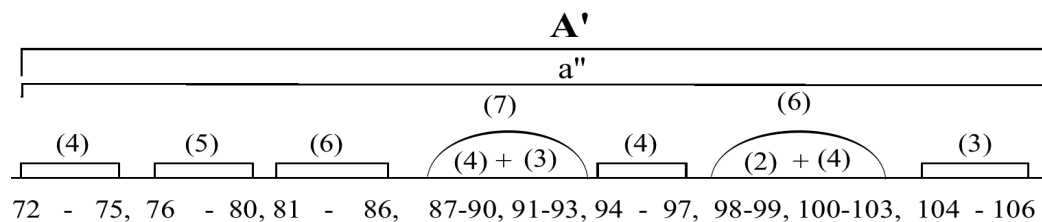
SECTION	MEASURES	Main Characteristic Defining Parameters
<b>A</b>	1-71	<ul style="list-style-type: none"> <li>-Three and one half-octave range (G1-D5)</li> <li>-G as the focal point</li> <li>-Opening 4-bar thematic material and variations</li> <li>-Counter melodies 1 and 2</li> <li>-Secondary theme</li> <li>-Use of hemiola (mm.76-80, 88-92)</li> </ul>
<b>A'</b>	72-133	<ul style="list-style-type: none"> <li>-Three-octave range (G1-G4)</li> <li>-G as the focal point</li> <li>-The full 8-bar thematic Material in Dialogue</li> <li>-Varied Secondary theme</li> <li>- Counter melody 2 (and its variations)</li> </ul>
<b>A''</b>	134-171	<ul style="list-style-type: none"> <li>-Four-octave range (C2-C6)</li> <li>-C as the focal point</li> <li>-Secondary theme (without the theme)</li> <li>-Counter melody 2 (and its variations)</li> <li>-Use of maracas as a special coloristic effect</li> </ul>
<b>A'</b>	172-240	<ul style="list-style-type: none"> <li>-Three-octave range (G1-G4)</li> <li>-G returning as the focal point</li> <li>-Reprise of the main theme and its various treatments such as fragmentation and dialogue</li> <li>-Use of counter melody 2 and its variations</li> </ul>

### 4.3 PHRASEOLOGY

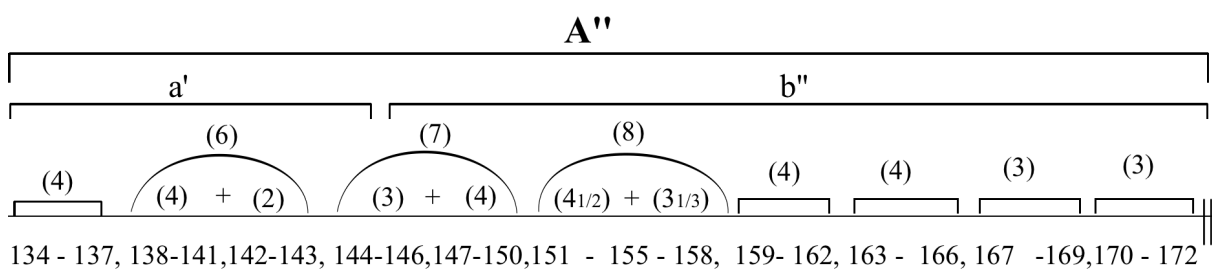
The discussion on the phraseology is broken down into three steps. First, a reduction mapping out the complete phrase design is done in order to illuminate how the sections of the piece are structurally phrased. Second, a table summarizing the phraseology of the piece will follow. Third, a comparative-analytical discussion on the functionality of individual phrases will be presented.



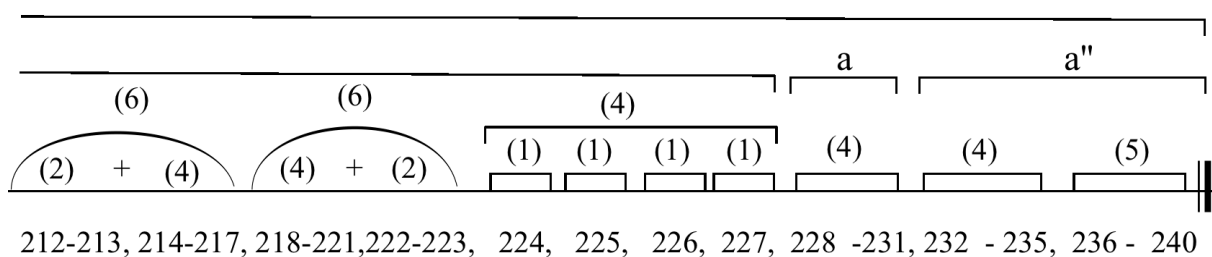
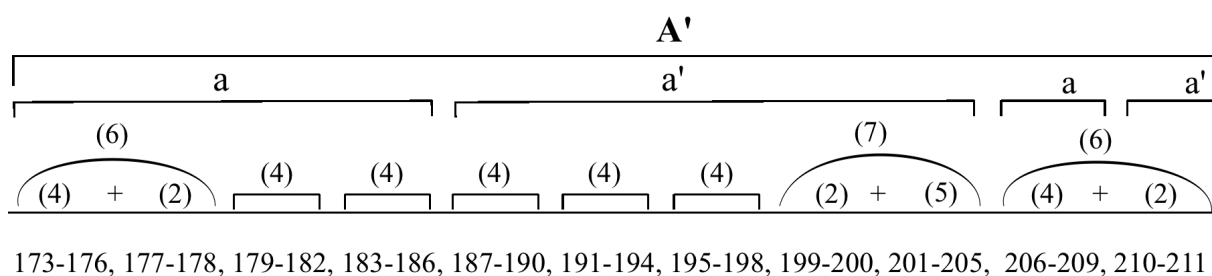
**Figure 5 (a): Phrase Reduction of Section A**



**Figure 5 (b): Phrase Reduction of Section A'**



**Figure 5 (c): Phrase Reduction of Section A''**



**Figure 5 (d): Phrase Reduction of the Reprise of Section-A'**

**Table 6: Summary of Phrase Lengths**

Type of phrase	Number of Appearances	Measures
3-bar	6	17-19, 41-43, 69-71, 104-106, 167-169 and 170-172.
4-bar	23	1-4, 5-8, 9-12, 13-16, 44-47, 48-51, 52-55, 61-64, 65-68, 72-75, 94-97, 121-124, 134-137, 159-162, 163-166, 179-182, 183-186, 187-190, 191-194, 195-198, 224-227, 228-231 and 232-235.
5-bar	6	20-24, 25-29, 30-34, 56-60, 76-80 and 236-240.
6-bar	7	35-40, 81-86, 98-103, 107-112, 138-143, 206-211 and 212-217.
7-bar	3	87-93, 144-150 and 199-205.
8-bar	2	113-120 and 151-156.
9-bar	1	125-133

#### **4.3.1 Interpreting the Phrase Design**

In the outline of the phrase map, two kinds of phrase marks are used. First are the square brackets referring to clear phrases without any expanded sub-phrase to be heard as part of the larger phrase design. Second, the rounded slur brackets demarcate sub-phrases within an expanded phrase usually longer than the 4-bar phrase design. For instance, mm.195-198 is heard as a clear 4-bar phrase but mm.199-205 is heard as a 7-bar phrase with four different sub-phrases: 2+3+1+1. The overlapping nature, repetition of notes at the end, or delay in articulating closing phrases with either thematic or secondary thematic materials in round slurred phrases, results in phrase ambiguity.

The formal structure of Tamusuza's piece is very complex in nature and a number of interpretations can be inferred from it. In this study, lowercase letters (a, a', a'' and b) refer to the main theme and secondary theme and their recurring variations. The two countermelodies are accounted for as part of the thematic or secondary thematic variations. Thus, looking at the overall formal design, we infer that the first movement of Tamusuza's *Mu Kkubo Ery'Omusaalaba* is a theme and variations design under which other complex smaller forms are constructed.

Each of the four sections has its own inner smaller structures patterned according to the way materials are organized. For instance, section A is a ternary structure: //: a :// a // b // a'//. The repeated opening 4-bar phrase introduces the theme and in the next sub-section a, countermelodies 1 and 2 are introduced. The 8-bar thematic dialogue and secondary theme are introduced in Section A' whose structure is binary: // a''// b'// indicating variations of the themes. In the third section (A''), the theme and secondary theme are further elaborated transposed up a perfect fifth transposition higher. Just like the second, the microstructure of the third section is binary: / a'// b''//. The fourth section is a reprise of Section A' in a theme and variation structure: // a // a'// a // a'// a // a''//.

Contracted and expanded patterns of length are the basis of inner structural devices. The two expanding sections occur in the first and third sections and two contracting ones in the second and fourth. Basing its structure on the first 16 measures, the ternary form of Section A expands twice: first to 27 measures and then to 28. The binary structure of Section A'' expands from 5 measures to 35. This is the longest expanded section mainly characterized by the cyclical nature of the countermelody in the b section.

Contrary to the binary structure of the third section, the second section (A') contracts from 49 measures of the thematic variation to 13 measures of the secondary theme. The 8-bar thematic dialogue defines sub-section a'' while the secondary theme (b') appears first as a 4-bar phrase followed by a 9-bar expansion with fragments and imitations of the same material. The positioning of the secondary theme foreshadows the transposed section in m.134. The final contraction in the fourth section is based on the first 14 measures of a (mm.173-186) and the subsequent two 4-bar phrases (mm.206-209 and 228-231) positioned between each variation: a' and a'' (mm.210-227 and 232-240). Similarly, the variations of the a material are contracted. The 19 measures of sub-section a' (mm.187-205) contract to 18 in mm.210-227, and finally to 9 in mm.232-240.

Patterns of expansions and contractions that take place at a micro structural level are reflected in the overall structure of the four bigger sections. Sections: A+A'+A''+A' are equivalent to: mm.71+62+39+68 in length. Thus, we see a contraction from Section A to A' and finally to A''. The two expansions are arrived at in two ways: first, when the third section progresses to the fourth (39+68) and, secondly, when the second section (A') recapitulates as the fourth (62+68).

#### **4.4 FUNCTIONALITY OF PHRASES**

In carefully crafting the phraseology of his piece, Tamusuza establishes a four-bar phrase model whose importance is clearly established at the start of each of the four sections. Although the fourth section starts with a 6-bar phrase, its pattern is introduced by a 4-bar sub-phrase, which still reflects the importance and prominence of the 4-bar model in introducing

each of the four sections of the piece. Upon this model, contractions and expansions of phrases result in complex phrase structures. The expanded phrases entail the intermingling of different materials resulting in phrase ambiguity. Because of such phrase complexity, the discussion on the phraseology is approached from a systematic perspective in order to capture most, if not all, compositional elements embedded within each phrase.

It is logical to first examine the constituent components that shape the 4-bar model so as to create a foundation on which phrase relationships can be drawn. Thus, the 4-bar phrase design is grouped into the following four categories:

- (1) Main Theme: (a) without any variation, (b) with the first or second countermelody, (c) with thematic imitations/response, (d) in dialogue either with thematic or non-thematic material.
- (2) Secondary Theme: (a) as a monologue, or (b) in dialogue
- (3) Transitory/Bridge Material
- (4) Second Countermelody

#### **4.4.1 4-Bar Opening Thematic Material without Countermelody**

There are four 4-bar phrases under this category found in mm.1-4, 173-176, 179-182, and 191-194. Among these, it is only in mm.1-4 where the opening of the main theme is announced twice in unison, by all four parts. In this case, repetition in unison asserts the importance of the theme as the material on which the piece bases its variations. In the other three phrases, the first violin plays the theme as a solo in the same range, except for mm.191-194 with the first transposition, now an octave higher.



Apart from the first phrase, where unison is the defining character, contrasting combinations and musical materials layered below the opening of the theme define the other three phrases. For instance, mm.173-176 has a unique duet in which the cello plays a pizzicato ostinato to accompany the thematic material in the first violin. In addition, the viola plays maracas in the third phrase, before simulating the *Akatamba* fiddle in the fourth. One similar role shared in the above three phrases is the use of perfect fifth ostinato figures that simulate the *Embuutu* in an accompanimental role. Each of the three phrases has a unique coloristic texture that yields contrast in each 4-bar thematic recurrence.

#### **4.4.2 4-Bar Opening Thematic Material with Countermelody**

There are four phrases under this category: mm.5-8, 72-75, 94-97, and 228-231. The opening thematic material may or may not have variations. Apart from the cello, which plays the theme in a lower register, all the other phrases play the opening thematic 4-bar phrase an octave higher than its original range. With the distribution of the material among two instrumental timbres, the viola (mm.5-8) and the first violin (mm.72-75, 94-97, and 228-231), the cello is denied the countermelodic role but instead is restricted to pizzicato accompaniment. By its nature the countermelody is cyclical. It provides continuity against the clear phrase breaks of the thematic material. At the same time, its cyclical quality solidifies repetition as an important compositional device already articulated in previous materials of the piece.



**Example 16(a): Countermelody 1 (mm.5-6)**

There are two countermelodies in Tamusuza's piece. Example 16(a) is the first of the two, appearing only in mm.5-8. It is characterized by a combination of two different rhythmic cells, with the second measure a repeat of the rhythmic pattern from the first measure.



**Example 16(b): Countermelody 2 (mm.73-75)**

The other three 4-bar phrases employ the second countermelody, which is characterized by the opening minor third and closing perfect fifth. On the one hand, there are three ways in which the two countermelodies are distinguished from each other. The first outlines a major triad and the second outlines a minor triad. Second, while the first one is only two measures long, the second is expanded to three measures with more internal repetition. Third, the closing intervallic contours of the two countermelodies contrast.

The repetitive nature of the second countermelody makes it possible for the layering of other materials on top of or below it. This takes place within the same or different registers and at varying intervals. At the same time, the layering of materials starting at different metric positions causes contrasting phrase patterns, some of which are ambiguous. This will be discussed in the summary of the phraseology and formal structure under section 4.11.

In a *Kiganda* ensemble, individual instruments are given an opportunity to expose important materials at specific moments during the piece. Using the same analogy, in mm. 134-137, Tamusuza highlights the second countermelodic material that has been an important musical foundation over which the layering of the theme and secondary theme has occurred.



**Example 16(c): Varied Countermelody 2 (mm.134-137)**

Through its repetitions and subtle variations, Example 16(c) gives the piece a sense of continuity. Its closing perfect octave and repetitive G expands it to a 4-bar phrase, pointing to a pattern of countermelodic expansions. This pattern stems from the 2-bar phrase in Example 16(a) to the 3-bar in 16(b), and now, to the 4-bar phrase. Because of its importance, this countermelodic material is used to announce the shift in focal point from G to C in m.134. At the same time, the cello, with its emphasis on C and the percussive coloristic effect of the maracas combine to strengthen the new focal point.

#### 4.4.3 4-Bar Phrases with Thematic Imitations/Responses

There are two 4-bar phrases that make use of thematic imitation in mm.13-16 and 48-51.



**Example 17(a): First Imitated Thematic Variation (mm.9-12)**



**Example 17(b): Second Imitated Thematic Variation**

Examples 17(a) and 17(b) are varied thematic materials imitated in mm.13-16 and 48-51 by the viola and first violin, respectively. The first example is stripped of its opening perfect fourth, giving more prominence to the minor third.

Whereas Example 17(b) maintains an opening perfect fourth as before, the theme expands to a major sixth in m.44 for the first time. This expansion completes the major triad that is clearly articulated in mm.44, 46 and 47. The major triad is further emphasized when the perfect fifth in the cello simulates the *Embuutu*. The missing B is completed when the two violins execute it repetitively in a manner that simulates the *Olutamba*. In addition to the deceiving arpeggiated major thirds, the use of eighth notes with rests in between creates a syncopated effect very common with the *Ensaasi* and *Engalabi* instruments of *Kiganda* music.

The four 4-bar phrases in mm.187-190, 195-198, 224-227 and 232-235 are composed of either rhythmic or lyrical/rhythmic material in the form of a response to the 4-bar opening thematic statement.



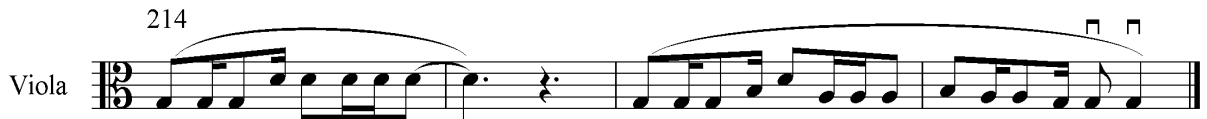
**Example 18(a): 4-Bar Rhythmic Response (mm.109-112)**



**Example 18(b): 4-Bar Lyrical/Rhythmic Response (mm.187-190)**



**Example 18(c): 4-Bar Rhythmic Response (mm.195-198)**



**Example 18(d): 4-Bar Rhythmic Response (mm.214-217)**

Examples 18(a-d) specifically recall the theme and thus, its ensuing reappearance. The relationship between these examples and the theme is deeply rooted in the four-bar phrase structure: repetition with subtle variation, and the use of the same descending closure. Thus, repetition, recurring ostinato figures, episodes of dialogue, imitation, expansion of materials, variation in register, as well as the simulation of *Kiganda* instruments and stylistic idioms are the most defining parameters of all 4-bar phrases on which other phrase contractions and expansions take place.

#### 4.4.4 4-Bar Secondary Thematic Dialogue

Unique to the two 4-bar phrases in mm.121-124 and 159-162 is their conversational nature, which represents music as a medium of communication among the *Baganda*. In the absence

of modulation in *Kiganda* music, dialogue between different voices or instruments takes place to articulate the power of communication, particularly in non-verbal music. In addition, passages of dialogue create contrasts in range, dynamics, timbre, and melodic material.

Violin 2

Violoncello

121

*mf*

*mf*

**Example 19(a): Violin 2 and Cello Secondary Thematic Dialogue (mm.121-124)**

Violin 1

Violin 2

159

*p*

*vib. mf*

*arco*

*mf senza vibrato*

**Example 19(b): Secondary Thematic Dialogue (mm.159-162)**

The recurrence of the secondary theme in various moments transforms its character by maintaining a 2-bar statement, however, with answers of varying lengths. In the above two examples, an arrow is used to point to the two phrases that constitute the concept of dialogue using the secondary theme. In these two cases, the dialogue is expanded to four bars compared to the previous three, when the secondary theme was first introduced in mm.17-19. Elongating the third phrase in 19(a) and the fourth phrase in 19(b) results in expansions.

Further, Example 19(a) clearly brings out the *Kiganda* female (violin) and male (cello) vocal interrelationship that is an important concept in question and answer passages. With two violins, *vibrato* and *senza vibrato* effects are used to make the same instrument sound like two

different ones. Moreover, the same example reintroduces retrograde as a technique previously noticed with the opening and closing intervals of the thematic recurrence. Dialogue was first initiated by a higher range instrument (first violin), and then answered by a lower range instrument (cello). The reverse of the process elaborates how Tamusuza is able to apply the same technique to different parameters.

#### 4.5 3-BAR PHRASING

Six 3-bar phrases are employed in mm.17-19, 41-43, 69-71, 104-106, 167-169, and 170-172. The three types of 3-bar phrases are: (i) 3-bar thematic variations, (ii) 3-bar secondary thematic imitations, and (iii) 3-bar counter melodic exposition. Based on the 4-bar model, this category becomes a contraction of materials in the form of fragmentation (with repetition) and variations (rhythmic and melodic, particularly with the ostinato figures).

The musical score shows two staves: Violin 1 (treble clef, 6/8 time) and Violoncello (bass clef, 6/8 time). Measure 17 is marked with a '17' above the staff. Violin 1 begins a phrase in measure 17 with a half note G4, followed by quarter notes A4, B4, and A4, then a half note G4. The phrase continues in measure 18 with quarter notes F#4, E4, and D4, and ends in measure 19 with a half note C4. The Violoncello part has rests in measures 17 and 18, and begins its phrase in measure 19 with a half note C2, followed by quarter notes D2, E2, and F#2, and ends in measure 20 with a half note G2. The Violoncello phrase is marked with an accent (>) over the final half note. Dynamics are *mp vib.* for Violin 1 and *mp arco senza vib.* for Violoncello.

**Example 20(a): 3-Bar Secondary Thematic Dialogue (mm.17-19)**

Violin 1

Violin 2

104

*mf*

**Example 20(b): 3-Bar Thematic Fragment (mm.104-106)**

Violin 1

Violin 2

Violoncello

170

*pizz*

*arco senza vib.*

*mf*

**Example 20(c): 3-Bar Bridge Passage (mm.170-172)**

These examples bring to our attention three ways in which Tamusuza achieves 3-bar contractions. Example 20(a) is the first appearance of the secondary theme in dialogue, which highlights the use of asymmetry in contracting materials. The 1-bar rhythmical response in the cello (m.19) is denied an equal 2-bar response to the first violin statement (m.17). Distinguishing this dialogue as a 3-bar phrase is the contrast in range, as well as the timbral effects (*vibrato* and *senza vib.*) in the question and response statements.

In Example 20(b), there are pitch variations that allow the repetition of B and D, as well as the sustaining of D from m.105 to 106. The 3-bar phrase in Example 20(c) is achieved through the use of contracted bridge materials that create tension and suspense through repetition. This tension is deeply rooted in the final appearance of the C in the cello (m.169), and the proceeding reinstatement of G (m.172) as the focal point. Thus, the minor third



reveals its significance in the bridging of the two focal points of the piece (C and G). Moreover, the sustained D smoothly connects to the reprise of the thematic material in the first violin (m.173).

#### 4.6 5-BAR PHRASING

The six 5-bar expanded phrases in Tamusuza's quartet happen in mm.20-24, 25-29, 30-34, 76-80, 151-155, and 236-240. The application of three contrasting processes on the theme and secondary thematic materials enable the expansion into 5-bar phrases. The processes involve: (i) expanding the responsorial statement phrase, (ii) repetition and sustaining of notes in either material, and (iii) the repetition of fragments of the theme or secondary thematic materials at the close of dialogue passages.

The image shows a musical score for Violin 1 and Violoncello. The Violin 1 part is in treble clef with a key signature of one flat (B-flat) and a 6/8 time signature. It begins at measure 20 with a 5-bar phrase. The Violoncello part is in bass clef with the same key signature and time signature. It has a 1-bar response in measure 21, which then expands to a 5-bar phrase starting in measure 24. The score is in 6/8 time and features a minor third rhythmic figure in measure 24.

**Example 21(a): 5-Bar Secondary Thematic Dialogue (mm.20-24)**

Secondary thematic dialogue previously appeared as a 3-bar phrase (m.17-19) in which the cello had a 1-bar response to the first violin statement. In the above Example 21(a), the minor third rhythmic figure (m.24) allows the cello response to expand to the same length as its (already slighted expanded) counterpart. Thus, symmetry is applied to this passage of dialogue, in order to create an expansion to a 5-bar phrase.



**Example 21(b): 5-Bar Secondary Theme in Violin 1 (mm.25-29)**



**Example 21(c): 5-Bar Responsorial Material (mm.76-80)**

While maintaining a lyrical nature, the sustained Ds and Bs in Example 21(b) are heard as an elongation. Similarly, sustaining as a mechanism of expansion is employed in Example 21(c) where the use of a tie (m.79) extends the responsorial material into the next bar, thus transforming it into a 5-bar phrase.



**Example 21(d): 5-Bar Secondary Thematic Fragment/Repetition (mm.30-34)**

The third and final way in which 5-bar expansions are arrived at is through repetition of a particular fragment. In Example 21(d), the last fragment of the varied secondary theme is repeated three times while fading out. The first three 5-bar phrases (mm.20-24, 25-29, and 30-34) occur in a row, but with different expansion techniques. Thus, the recurring of the secondary thematic material with varied expansion techniques (sustain, repetition, fragmentation) gives the piece variety and direction. However, as expanding 5-bar phrases take shape, clarity in phrasing starts to get ambiguous, thus, adding tension and drive.

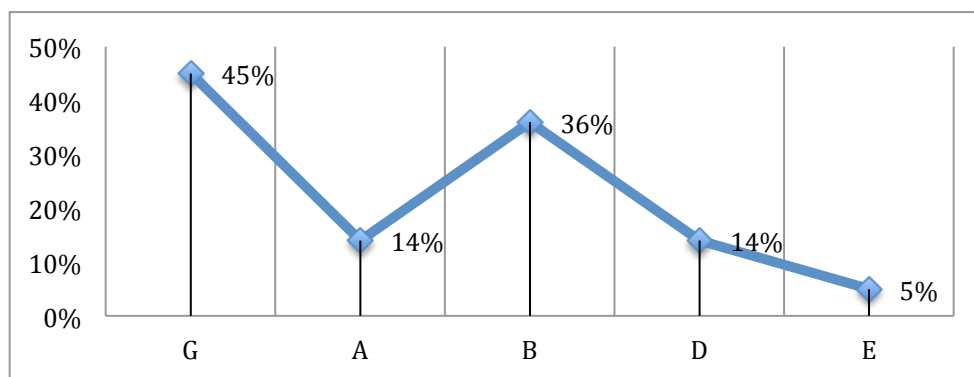
#### 4.6.1 5-Bar Closing Response

The first violin response in the last 5-bar phrase (mm.236-240) concludes the piece in a special way.



**Example 21(e): 5-Bar Closing Response (mm.236-240)**

The opening thematic statement (mm.1-4) finds its resolution in the significant repetition and emphasis of G in the response. Even when the opening statement gave more prominence to D, the degree of repetition of G in the closing 5-bar phrase gets much higher to confirm its focal reference in the last section of the piece. Figure 6 below shows a wide DPR range between G and the other notes, confirming G as the goal of the piece.



**Figure 6: DPR Graph of the Closing Responsorial Material**

## 4.7 6-BAR PHRASING

When Tamusuza combines thematic fragments with responsorial materials or secondary thematic imitations, he attains 6-bar phrase expansions. These 6-bar phrases are carefully crafted in two different ways: (i) those that begin with a 2-bar phrase, followed by a 4-bar phrase (mm.98-103, 107-112, and 212-217), and (ii) those that start with a 4-bar phrase and end with a 2-bar phrase (mm.35-40, 173-178, and 206-211).

The musical score for measures 107-112 shows a 2+4 pattern in a 6-bar dialogue phrase. The Violin 1 part begins with a sustained D in measure 107. The Viola part enters in measure 108 with a 4-bar phrase. The Violin 1 part enters in measure 110 with a 2-bar phrase. The Viola part continues with a 4-bar phrase. The score is marked with 'mf'.

**Example 22(a): 2+4 Pattern in a 6-Bar Dialogue Phrase (mm.107-112)**

Example 22 is the type in which varied thematic fragments are used as 2-bar phrase statements answered by a 4-bar responsorial statement. The 4-bar response interrupts the incomplete statement at an intersecting point, which becomes significant in defining the nature of this 6-bar phrase expansion. In each case, the sustained D in the first violin makes it possible for an overlapping perfect fifth to occur as the defining point of attack in the 2+4 pattern of 6-bar phrasing.

In the second 6-bar pattern (4+2), fragmented phrase-imitations are employed as a mechanism of phrase expansions. Of all the 6-bar phrases, this technique is only applied to a secondary thematic fragment in mm.35-40.

The musical score shows two staves, Violin 1 and Violin 2, in 6/8 time. Measure 35 is marked above the Violin 1 staff. Violin 1 plays a melodic line with eighth notes and rests, while Violin 2 plays a rhythmic accompaniment of eighth notes. The phrase concludes at measure 40 with a *mp* (mezzo-piano) dynamic and *senza vib.* (senza vibrato) marking.

**Example 22(b): 4+2 Pattern in a 6-Bar Fragmented Imitative Phrase (mm.35-40)**

Example 22(b) is a 4+2 6-bar imitative phrase whose function is: (i) to give a sense of development to the secondary thematic material through rhythmic variations, (ii) to act as transitory material to a 3-bar bridge passage, and (iii) to contrast dynamic and timbral color through the juxtaposition of imitatively fragmented materials against a thematic variation in the cello and *Embuutu* simulations in the viola.

The other two phrase types in the 4+2 pattern (mm.173-178 and 206-211) occur when the theme is either expanded or juxtaposed with other materials.

The musical score consists of two systems. The first system (measures 173-175) features Violin 1 playing a melodic line with a *mf* dynamic, Viola playing a rhythmic pattern with a *pizz* dynamic, and Violoncello playing a rhythmic pattern with a *pizz* dynamic. The second system (measures 176-178) features Violin 1 playing a melodic line with a *p* dynamic, Viola playing a rhythmic pattern with a *p* dynamic, and Violoncello playing a rhythmic pattern with a *p* dynamic. The score is in 6/8 time and includes dynamics like *mf*, *pizz*, and *p*.

**Example 22(c): 4+2-Pattern with a 6-Bar Elongated Thematic Ending (mm.173-178)**

The theme recurs with its 4-bar model in Example 22(c) with the repeated and sustained closing D (m.177-178) expanding the phrase. The perfect fifth jump from the closing G (m.176) gives the 2-bar sub-phrase a clear a-melodic character (repetition, rests, and sustaining), but whose pitch content is directly linked to the previous 4-bar material. At the same time, the contrasting repetitive cello figures in each of the 4+2 patterns of this 6-bar phrase define the independence of each sub-phrase. The isolated rhythmic ostinato figures in the cello (4-bar sub-phrase) are expanded in the last 2-bar sub-phrase with a continuous/repetitive line.

#### 4.8 7-BAR PHRASING

There are three types of 7-bar phrase groupings: (i) 4+3 pattern (mm.87-93), (ii) 3+4 pattern (mm.144-150), and (iii) 2+5 pattern (mm.199-205). Varied fragments of the theme as well as responsorial materials are employed in passages of dialogue combined with sustaining, an overlapping elision and interruptions.

The image displays two staves of musical notation. The top staff is for the Viola, starting at measure 87. It features a 12/8 time signature and a mezzo-forte (*mf*) dynamic. The melody begins with a quarter note, followed by eighth notes, and includes a sustained note in measure 90. The bottom staff is for the Violin (Vln.), starting at measure 91. It also has a 12/8 time signature and continues the melodic line with eighth notes and a sustained note in measure 93. Both staves use slurs to group notes and have fermatas at the end of the phrases.

**Example 23(a): 7-Bar Responsorial Material**

Example 23(a) illustrates how sustaining is employed in different segments of the responsorial material in order to expand it beyond its original 4-bar length. By deterring the response from taking its usual momentum of motion, the sustained Ds (m.88 and 90) and the closing G (m.93) elongate the response. Although this elongation sounds like one long phrase, through the near repetition of m.87 in m.91, two sub-phrase patterns 4+3 (mm.87-90) and (mm.91-93) can be discerned.

Violin 1

Violin 2

144

*p*

*mf*

Vln. 1

Vln. 2

### Example 23(b): The 7-Bar Secondary Theme/Counter-melodic Elision

An elision in m.146 merges two sub-phrases of Example 23(b) into a 7-bar phrase in which the secondary theme in the second violin interrupts the varied counter-melody. The opening minor third (G-E) in the counter-melody is repeated in the secondary theme. The irregular metric placement of the secondary theme and the continuous accompaniments in the viola and cello allow a smooth point of intersection (m.146). In addition to coloring the secondary theme, the C harmonics in the first violin articulate the pitch or rhythmic or independence of the secondary theme. This change in texture creates a feeling of new material accruing from the 2-bar counter-melody. Finally, while the counter-melody is rhythmic, this varied secondary theme combines both rhythmic and lyrical characters.

The last 7-bar phrase (mm.199-205) combines fragments from the question thematic statement and the thematic responsorial material.



199

Violin 1

*mf senza vibrato*

Viola

*mf*

203

Vln. 1

Vla.

#### Example 23(c): 7-Bar Thematic Dialogue (mm.199-205)

The theme is deprived of its constituent components in the first violin (mm.144-145) in order to create a 2-bar statement, which is answered by a 5-bar responsorial phrase in the viola (mm.146-150). The full bar of rest in m.149 creates a moment of suspense. Moreover, the phrase that precedes the silent bar sounds incomplete. However, the linear descent in m.150 provides full closure to the response and thus resolves the tension surrounding the incomplete phrase and silence.

### 4.9 8-BAR PHRASING

The two expanded 8-bar phrases (mm.113-120 and 151-158) are organized into sub-phrases: 2+2+2+2 and 4½ + 3½.

Violin 2

Viola

113

*poco a poco dim.*

Vln. 2

Vla.

**Example 24(a): 8-Bar Repetitive Responsorial Fragment (mm. 113-120)**

Example 24(a) illustrates further use of fragmentation, repetition and overlapping phrases in expanding a phrase. Under the recurring counter-melodic material in the second violin, two bars of responsorial material form the four 2-bar sub-phrases that occur repetitively in the viola.

Violin 2

151

*poco a poco cresc.*

Vln. 2

155

*f*

*vib. mf*

**Example 24(b): 8-bar Secondary Thematic Material (mm.151-158)**

Example 24(b) exemplifies another kind of syncopation. The first beat rhythmic figure of the 4½-bar sub-phrase (m.151) then happens in the second beat of the 3½-bar sub-phrase

(mm.155, 156 and 157), creating an interesting shift in metric placement. It is because of this shift that we hear this 8-bar phrase in the pattern:  $4\frac{1}{2} + 3\frac{1}{2}$ .

#### 4.10 9-BAR PHRASING

The only one 9-bar phrase in the piece happens in mm.125-133 in the pattern of 2+7. With the secondary theme, imitation and fragmentation are combined to generate an expansion of the longest phrase in the piece.

The musical score for Example 25 consists of two systems of staves. The first system covers measures 125 to 128, and the second system covers measures 129 to 133. The instruments are Violin 1, Violin 2, Viola, and Violoncello. The key signature is one flat (B-flat), and the time signature is 6/8. The phrase is marked with a 'mf' (mezzo-forte) dynamic. The first system shows the beginning of the phrase, with the Violoncello playing a 2-bar sub-phrase and the other instruments imitating it. The second system shows the continuation of the phrase, with the Violoncello playing a 7-bar sub-phrase and the other instruments imitating it.

**Example 25: The 9-Bar Fragmented/Imitative Phrase**

The recurrence of the secondary theme in the cello (mm.125-126) defines the first 2-bar sub-phrase pattern. Fragmenting, varying, and repeating the secondary thematic material

in the two violins and the cello expand the phrase. In particular, the last measure is a reminder of the viola's accompanying *Engalabi* simulations. The recurring fragments of the secondary theme tend to shift focal points from G to E, preparing a smooth transition for the recurring countermelody in Section A'. This 9-bar phrase functions as a large-scale closure to section A with its thinning texture. At the same time, the recurrence of the sub-theme creates tension during the transition to Section A', whose focal pitch becomes C.

#### **4.11 PHRASE AMBIGUITY**

Ambiguity in phrase has been one of the devices to create tension, suspense and drama in the piece. The 4-bar rule established from the beginning of the piece and re-echoed at the start of each of the four sections is frequently broken by contractions and expansions of materials. The first and third sections each start with a 4-bar phrase and close with a contracted 3-bar phrase. In contrast, the second and fourth sections each start with a 4-bar phrase and close with expanded 9-bar and 5-bar phrases. Although the start of the fourth section is an expanded 6-bar phrase (4+2), the first part of its pattern still reflects the 4-bar phrase design, though with more ambiguity.

One of the causes of this ambiguous 6-bar phrase, and numerous other phrase expansions, is the layering of contrasting materials starting at different points in the measure. Overlapping, materials ending while others are beginning, is another cause of phrase ambiguity. Further, the juxtaposition of the cyclical countermelodies against the theme or secondary thematic materials obstructs phrase clarity.

The 7-bar secondary theme/counter melodic elision (mm.144-150, p.64) is one example of an ambiguous phrase. The first statement of the imitation is directly derived from the varied secondary thematic material. However, the opening minor third is rhythmically varied in a way that sounds similar to that of the responding phrase, making it hard to distinguish between the two. In fact, they can be heard as the same material in imitation. However, the responding phrase is derived from the variation of the secondary theme, which adopts a rhythmic character in addition to its lyrical one. Thus, when the two elide in m.146, it deters the clarity of the ending statement and beginning response, the result of which is an ambiguous phrase.

In addition, metrically shifting materials that are combined with fragmented rhythmic cells create phrase ambiguity. This was seen in Example 24(b) where the second pattern (3½) of the 8-bar secondary thematic phrase was the result of this process. The fragmented cells positioned between rests create an echo effect that brings out its closing nature. Because these rhythmic cells are isolated and disjointed, it is difficult to hear it as a continuous 8-bar phrase.

The constant restatement of the 4-bar pattern between ambiguous phrases revives clarity. Distinguishing each of four sections is the application of phrase ambiguity and the process of restoring the 4-bar clarity. For example, we see the only ambiguous phrase in the first section (mm.35-40) leading to a 3-bar phrase, before the restoration of the 4-bar model.

Also, an interesting contraction-expansion pattern in phrase ambiguity distinguishes the second section when a 7-bar phrase (mm.87-93) leads to a 4-bar model, which then contracts down to two 6-bar ambiguous phrases separated by a 3-bar phrase. The expansion of phrase ambiguity to 8-bars (mm.113-120) and then 9-bars (mm.125-133) even creates more

tension, although a 4-bar phrase in between momentarily restores clarity, only to be outweighed by an intensification of ambiguity.

Expanding phrase ambiguity is further seen after the opening 4-bar phrase (mm.134-137) of the third section. Ambiguity here increases when a 6-bar phrase (mm.138-143) progresses to a 7-bar phrase (mm.144-150) and then to an 8-bar phrase (mm.151-158). Interestingly, time is taken here to resolve ambiguity when the restoration of the 4-bar model is reinforced before contracting to the two closing 3-bar phrases.

The fourth section echoes the ambiguity in phrases of the second section. In the second section, ambiguity gradually increases. In the fourth section, the clear 4-bar phrase model is repeated and then breaks down with four ambiguous phrases (7+6+6+6). The tension is released when the 4-bar model gets restored again in m.224-225. Since the climax of the section starts building around m.236, it is surprising that the piece ends with an expanded 5-bar phrase, in which dynamics build up to *ff* (*senza rit.*), the DPR of G increases to 45%, and a fall in PD to 57% takes place. Starting with a 4-bar phrase and ending with a 5-bar phrase is a clear articulation of the coexistence of contrasting phrase patterns, the most distinctive vehicle of tension and relaxation in the piece.

#### **4.12 POLYRHYTHMIC BLOCK TEXTURES**

A critical look at the first movement of Tamsuza's *Mu Kkubo Ery'Omusaalaba* reveals the use of polyrhythmic blocks as one of the unifying factors in the piece. Apart from the introduction and a few other places where rhythmic unison is employed, polyrhythmic blocks are employed throughout the piece as: (i) accompaniment to the main theme or the secondary

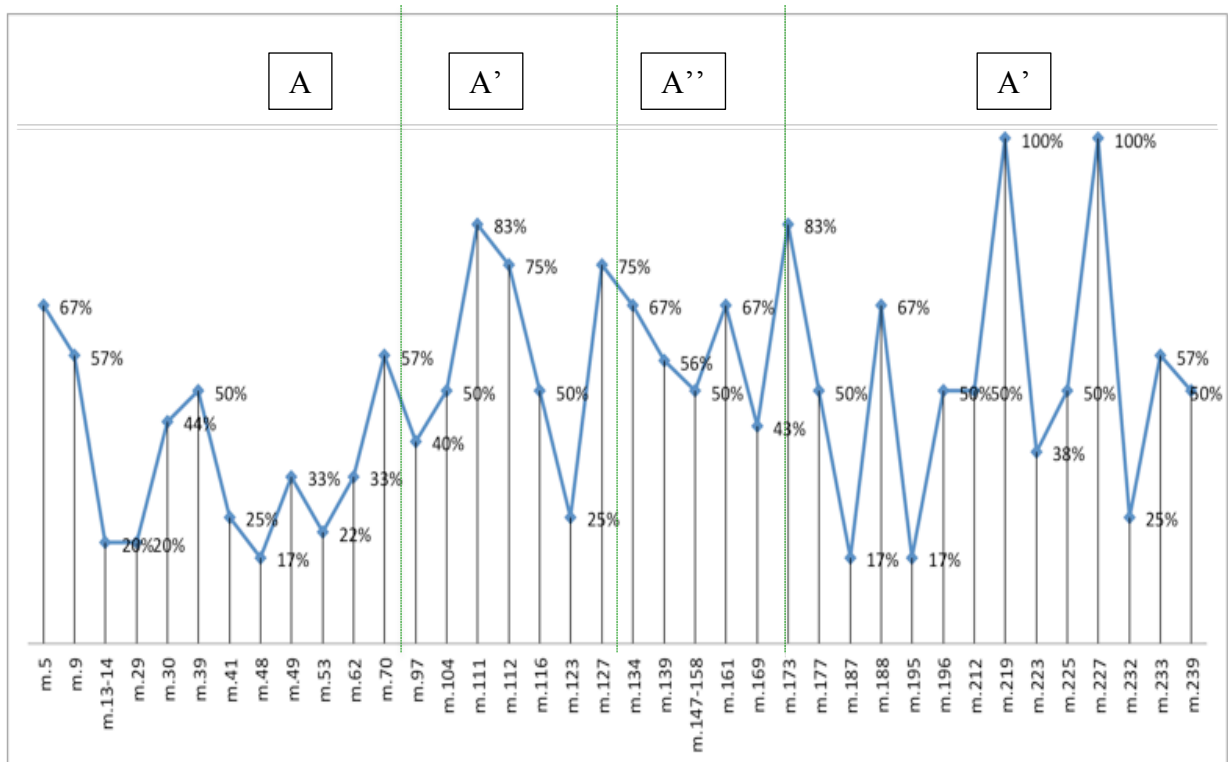
theme, (ii) a means of bridging different sections of the piece or (iii), a build-up of climactic areas. The main rhythmic markers in the piece (duration and tone colors, with a few accents) form the PRBs in the piece, whose elaboration is aided by a sample of thirty-nine PRBs<sup>30</sup> how the use of polyrhythmic texture shapes the structure of the piece.

**Table 7: PRBs and Their Representative Polyrhythmic Degrees**

SECTION	Polyrhythmic Blocks (PRBs)	n <sup>1</sup>	n <sup>2</sup>	Polyrhythmic Degree (PD)
<b>A</b> (mm.1-71)	m.5	4	6	67%
	m.9	4	7	57%
	mm.13-14	1	5	20%
	m.29	1	5	20%
	m.30	4	9	44%
	m.39	1	2	50%
	m.41	1	4	25%
	m.48	1	6	17%
	m.49	2	6	33%
	m.53	2	9	22%
	m.62	2	6	33%
	m.70	4	7	57%
<b>A'</b> (mm.72-133)	m.97	2	5	40%
	m.104	3	6	50%
	m.111	5	6	83%
	m.112	3	4	75%
	m.116	2	4	50%
	m.123	1	4	25%
	m.127	3	7	75%
	m.132	1	7	14%
<b>A''</b> (mm.134-172)	m.134	4	6	67%
	m.139	5	9	56%
	mm.147-158	3	6	50%
	m.161	4	6	67%
	m.169	3	7	43%

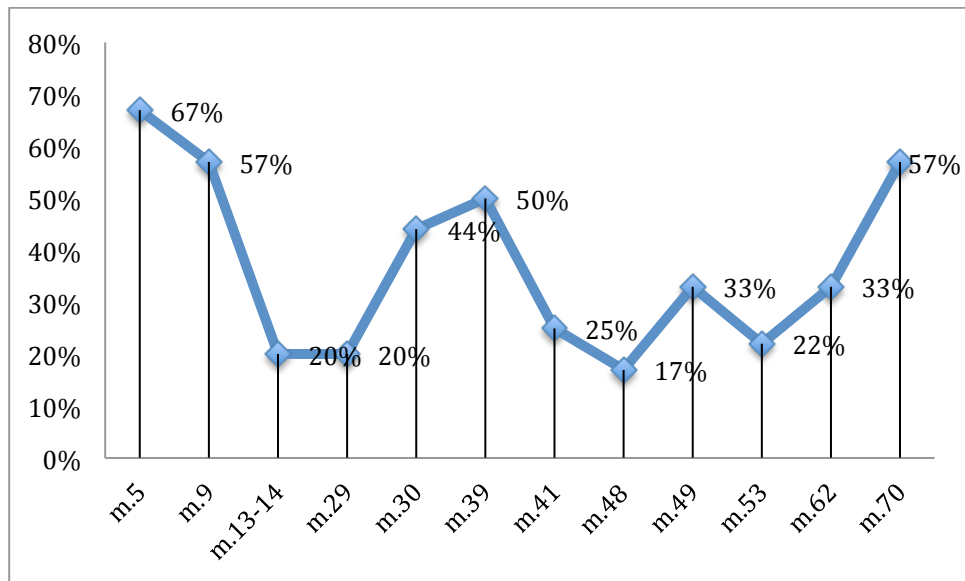
<sup>30</sup> The 39 PRB samples were chosen by: (i) assembling/calculating all PRB textures in the entire piece, and (ii) eliminating sequences of similar PRB texture or occurrence. The 39 representative sampled PRBs from which PDs are calculated can be found in Appendix B, page 89.

<b>A'</b> (mm.173-240)	m.173	5	6	83%
	m.177	2	4	50%
	m.187	1	6	17%
	m.188	4	6	67%
	m.195	1	6	17%
	m.196	3	6	50%
	m.212	2	4	50%
	m.219	4	4	100%
	m.223	3	8	38%
	m.225	2	4	50%
	m.227	8	8	100%
	m.232	1	4	25%
	m.233	4	7	57%
	m.239	2	4	50%

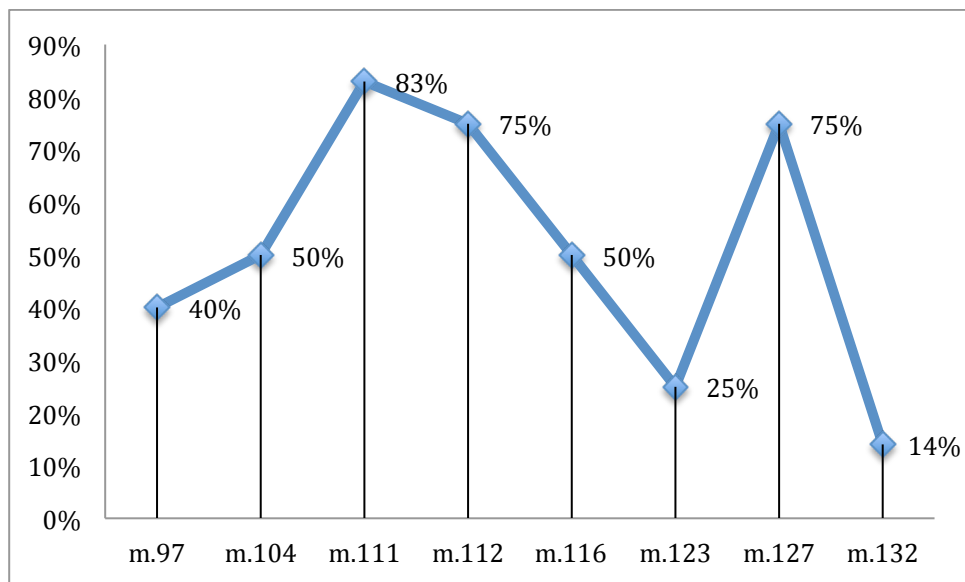


**Figure 7 (a): PDs of the First Movement**

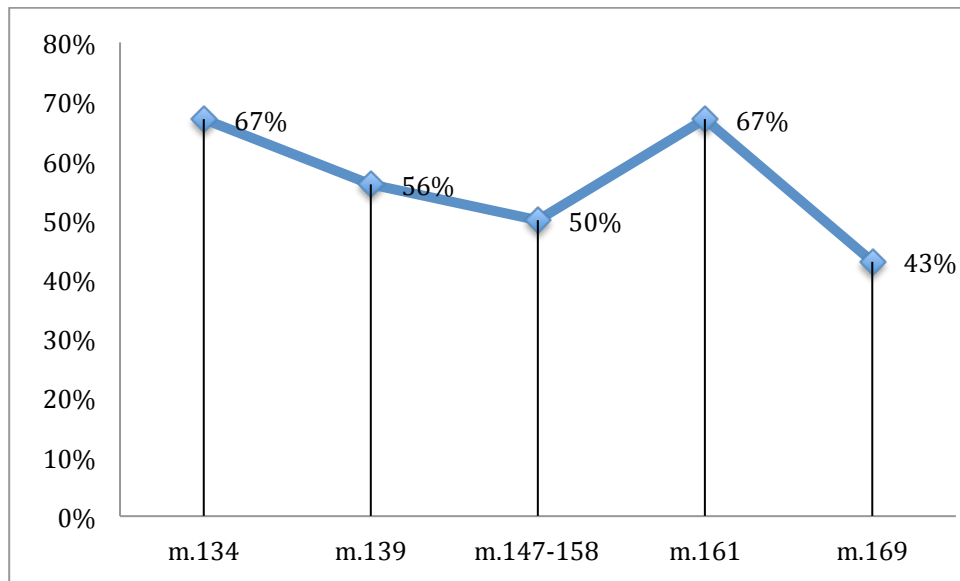




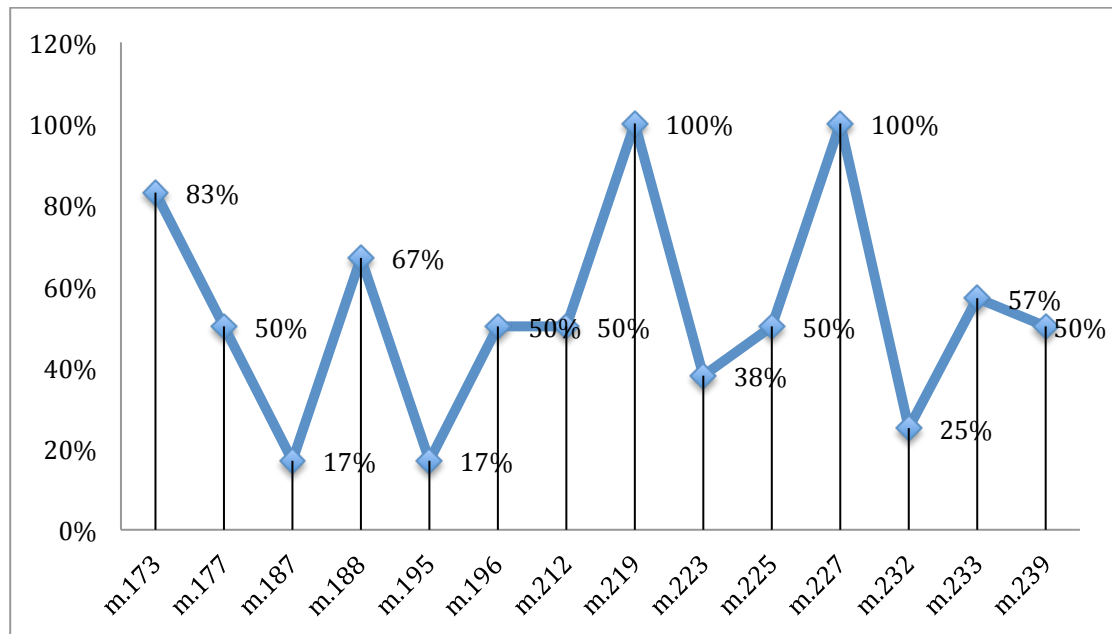
**Figure 7 (b): PDs of Section A**



**Figure 7 (c): PDs of Section A'**



**Figure 7 (d): PDs of Section A''**



**Figure 7 (e): PDs of the Reprising Section A'**

#### 4.12.1 Analytical Observations from the PD Graphs

The above PD graphs illustrate how Tamusuza uses polyrhythmic textures in defining structure and polyrhythmic peaks, which at times coincide with climactic moments. On the whole, there are fourteen ostinato figures over which the thematic, secondary thematic, or countermelodic materials are superimposed to create polyrhythmic textures. Similar to stratified sampling as a technique of investigation, formulation and analysis of data in research methodology, a sample of fourteen polyrhythmic blocks built from fourteen ostinato figures in the piece are used to represent the overall polyrhythmic structure of the piece.

In addition, since polyrhythms can occur between any two rhythmic figures, the sampled polyrhythmic blocks are a combination of only two voices that were selected because of their rhythmic intermarriage. Moreover, since a methodology is already in place, thanks to Arom and Oluranti, the use of samples is enough to provide a fair representation of the overall structure.<sup>31</sup>

A critical examination of Figure 7(a) reveals a rise-fall trend in PRB textures. In some *Kiganda* musical traditions, climactic goals are shaped by the rate at which polyrhythmic complexity occurs. The fall from the highest PD moment signifies transition from a ‘climactic peak’ in the *Kiganda* context. In a similar manner, Tamusuza employs the rise-fall PRB textures in order to define ‘climactic peaks’ of three of the four sections. Moreover, this rise-fall trend, as reflected over the general structure of the piece, also appears in the main thematic contour, a relationship that contributes to the coherence of the piece.

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<sup>31</sup> The fourteen ostinato figures and their PRB chances are contained in Appendices A and C for reference.

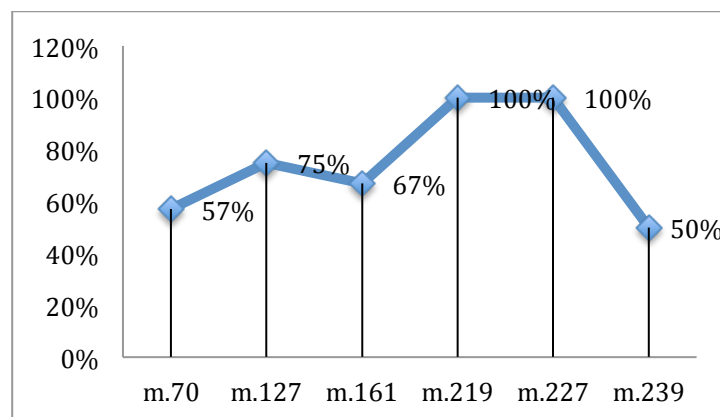
Section A reaches its polyrhythmic peak in m.70, where the PD value is 57%. At this moment, a 3-bar phrase cuts short the preceding 4-bar phrases, the sudden *f* dynamic is coupled with repeated sixteenth notes in the first violin and other ‘pure rhythmic’ figures in the second violin and cello create a feeling of climactic anxiety. A drop in dynamics to *p* at the recurrence of the theme in m.72, coincidences with the fall to a 40% PD value. At this point, we hear the thematic responsorial phrase (mm.76-80) for the first time, introducing a pattern of thematic dialogue and confirming a new section of thematic transformation in the piece.

Section A’ reaches its goal when a PD value of 75% (m.127) is attained in a 9-bar phrase. The gradual build-up from 40% (m.97) to 83% (m.111) and fall to 75% (m.112) in the second section highlights the rise-fall patterns of rhythmic complexity. We could easily confuse 83% PD to be the ‘climactic peak’ since it is the highest in the section, yet it does not last long enough for it to hold climactic importance. At the same time, the 75% PD in m.112 only announces the primary PD goal of the section. The fall to 50% in m.116 leads to a gradual build-up back to 75% in m.127 where we get a moderately loud dynamic with a relaxed imitative texture. Furthermore, the feeling of tension is resolved by the sudden break in texture from two instruments to one.

Contracting and expanding phrase patterns in sections A and A’ correspond to (i) the preparation of climactic areas and (ii) the treatment of the ‘climactic peak’ phrases. While two 4-bar phrases precede the 57% PD (3-bar phrase) in section A, one 4-bar phrase precedes the 75% PD (9-bar phrase) in section A’. This highlights the coexisting patterns of contraction and expansion in the way climactic goals of these two sections are prepared and ended.

Right from the start of section A'', Tamusuza announces his climactic PD (67%) (m.134), which gradually falls to 50% (mm.147-158) rises back to 67% (m.161). This climactic PD occurs in a 4-bar phrase with an *mf* dynamic, followed by a *diminuendo* in m.165, which still shares the same PD. The climactic PD is preceded by three ambiguous phrases (6-bar, 7-bar and 8-bar) and, as the PD falls to m.169, it coincides with the contracting two 3-bar phrases of the section as well as the dissolution of the four-voice texture to one (mm.170-171).

In the fourth section (the reprise of section A'), the highest PD (100%) is first attained in m.219 (6-bar phrase) and then later in m.227 (4-bar phrase). There is a fall to 38% (m.223) and 25% (m.232) respectively. Similar to section A'', the 100% PD in m.219 foreshadows the PD in m.227. Surprisingly, we do not hear any climactic effect at these moments. In fact, the climactic significance of the texture at this PD level is downplayed by the *pp* dynamic. It is in m.234 that we start to feel a build-up to the climax with a *crescendo* to *ff* (m.238 with a 57% PD), the loudest dynamic in the movement. This is coupled with the repetition of the thematic responsorial phrases, generating the highest DPR on G (45%).



**Figure 8: The rise-fall structure of the highest PDs**

According to Figure 8 it seems that the goal of the first three climactic PDs has been the attainment of 100% PD value, yet we do not feel a climax at that moment. While the contour of PDs clearly illustrates the rise-fall pattern reminiscent of some *Kiganda* musical genres, the return to G as the focal point, 100% PD, and reprise of section A' as the fourth section, play the strongest roles in defining structure. The experience of the piece does not necessarily have the traditional climax (built on dynamics, texture and harmonic arrival). In fact, *Tamusuza* averts the listener's expectations when the climax of the fourth section coincides with the dynamic buildup to *ff*, a fall in PD (57%) and a rise in the DPR of G (45%).

Clear with the first three sections is the rise-fall polyrhythmic pattern that ends each section. Figure 7(a) illustrates *Tamusuza*'s use of PRB textures in defining motion, structure, and climactic-polyrhythmic peaks in the first three sections. It is evident that, after the first three climaxes, the fall in PD provides a foundation on which a gradual build-up to the next moment is attained. However, averting this pattern of expectation in the fourth section accords the movement a somewhat surprising, but distinctive closing character.

## **5.0 CONCLUSION OF THE STUDY**

Since African art music came into being, scholars have not given much attention to the analysis of African art compositions, partly because of the lack of a relevant methodology. Those that attempted it had a one-sided perspective (primarily musicological), thereby leaving a realm of musical events unaccounted for. Music theorists have criticized the pitfalls of such attempts but have not suggested any appropriate analytical techniques. This dilemma has been the research problem of this study, to which an analytical methodology that puts into account the binary nature of intercultural music composition has been established. Whereas intercultural composition is a very broad school of thought, the methodology of this study is more relevant to compositions that entail the amalgamation of Western and non-Western musical idioms.

Through the trajectory of both musicological and theoretical dimensions, this study expands the existing analytical approaches to intercultural composition. Its framework can be used as a foundation on which a holistic analytical study of intercultural compositions can be built. Through a musicological lens, the analyst is well-equipped to investigate and examine the composer, with specific reference to influences/circumstances surrounding his/her compositional style, and, above all, both Western and non-Western compositional processes employed in his/her work. That provides a strong foundation on which the application of the

theoretical dimension creates a narrative of relationships deeply rooted in the intertwined nature of the composition.

This study has unveiled Tamasuza's influences that shape his compositional language, in particular, the relationship that lies between text and melody in the *Kiganda* style. Being a tonal language, the characteristics of *Luganda* (Tamasuza's native language) shaped the thematic material of his string quartet. Such a strong compositional pairing (rhythm and melodic contour) is later on used as the basis on which the composer elaborates *Kiganda* compositional processes alongside Western musical idioms.

Other non-Western musical processes that inform Tamasuza's style in *Mu Kkubo Ery'Omusaalaba* are: *Kiganda* vocal techniques such as call and response, counter-melodic technique, use of transitory bridge passages mainly defined by their rhythmic nature and absence of any melodic material, use of the *Nankasa* hemiola effect, use of a secondary theme to articulate process in the *Kiganda* folk song genre, use of polyrhythmic block textures to define climactic moments and the structure of the piece and the simulation of *Kiganda* fiddles, drums, and maracas. Most prominent of these are the cello ostinato figures intended to simulate the behavior/role of the *Embuutu* in *Kiganda* music.

A thorough musicological examination of the composition has allowed us to acquire the necessary tools of looking at this intercultural composition from a theoretical perspective. We have been able to draw musical and non-musical relationships embedded in the piece by using some of the already existing analytic methodologies. For instance, a phrase reduction and table defining the phraseology and formal structure of the piece allowed for the examination of the phrase structure, which revealed the significance of the 4-bar phrase design most common in the traditional music of the *Baganda*. Most particularly, examining



and analyzing phrase types/categories has been rewarding in unveiling the application of *Kiganda* musical processes/idioms and their functions in the piece. Since *Kiganda* musical genres have constant phrase patterns, revealed phrase contractions and expansions in the piece have provided one of many examples of Tamusuza's internationalization of Western compositional techniques.

Rewarding also has been Arom and Oluranti's analytical approaches that apply to compositions in which polyrhythmic block textures are one of the defining parameters of polyrhythmic intensity, which coincides with certain climactic moments. In addition, PRBs have been useful in defining forward motion and overall structure of the piece. Moreover, with the concept of repetition being introduced right at the beginning of the opening 4-bar theme, the rate at which individual notes are repeated, coupled with other forces such as the ostinato figures, has revealed shifts in pitch centricity and the nature of the thematic material.

Agawu notes that what distinguishes African musical processes is "the degree of repetition of the constituent patterns, the foregrounding of repetition as a *modus operandi*."<sup>32</sup> Similarly, the 'modus operandi' is repetition in the first movement of Tamusuza's string quartet. Fourteen foreground ostinato figures are the basic elements on which other compositional processes unfold. Other processes superimposed above the 'modus operandi' include melodic dialogue between voices, overlapping lines, variation in register and dynamics, expansion and contraction of phrases and intervals, as well as fragmentation of thematic materials. It is the use of such processes that culminate in polyrhythmic figures whose prominence, together with the main theme, play an interactive role in defining the structure and coherence of the piece. This coherence is further achieved through the use of

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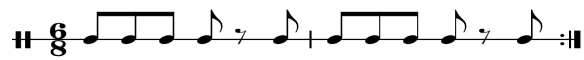
<sup>32</sup> Kofi Agawu, *Representing African Music*, 81.

thematic and secondary thematic materials as well as countermelodies and their recurrences, the polyrhythmic blocks, and the recurring melodic perfect fourths and perfects fifth in ostinato figures.

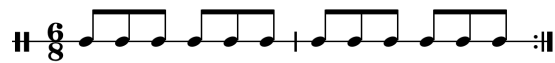
In employing compositional processes where rhythm is a more defining parameter than pitch, Tamusuza has utilized polyrhythmic blocks as a device for textural construction. Moreover, PRBs create dramatic tension through the rises and sudden falls in polyrhythmic degrees. In so doing, the elaboration of rhythm as a potential tool of process in composition has been successfully achieved. The methodology of the study has allowed for the examination of the most complex structures embedded in Tamusuza's piece. This analytical model has provided a holistic response to the problem of the study. As such, it could be used in future scholarship as a basis on which other analytic techniques to intercultural compositions can be propounded. But, for the moment at least, a holistic analytical approach for intercultural composition and, in particular, art music in Africa has been set in motion.

## APPENDIX A

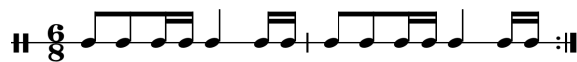
### THE FOURTEEN OSTINATI



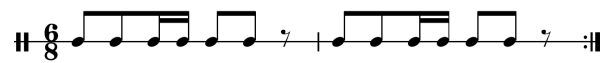
**Example 26(a): Ostinato 1**



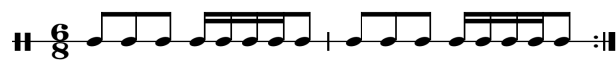
**Example 26(b): Ostinato 2 (variation of ostinato 1)**



**Example 26(c): Ostinato 3 (variation of ostinato 1)**



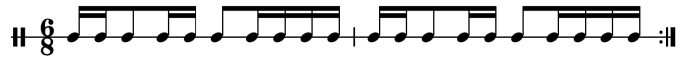
**Example 26(d): Ostinato 4 (variation of ostinato 1)**



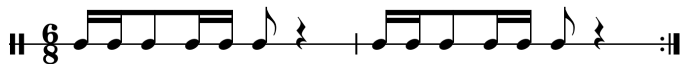
**Example 27(a): Ostinato 5**



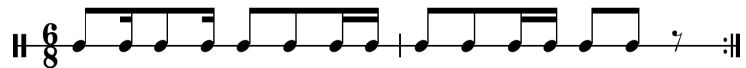
**Example 27(b): Ostinato 6 (variation of ostinato 5)**



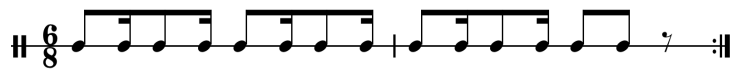
**Example 28(a): Ostinato 7**



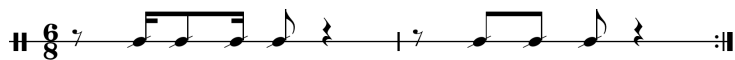
**Example 28(b): Ostinato 8 (variation of ostinato 7)**



**Example 29(a): Ostinato 9**



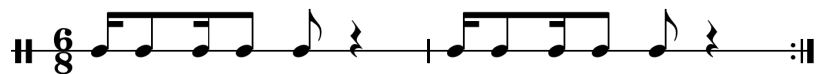
**Example 29(b): Ostinato 10 (variation of ostinato 9)**



**Example 29(c): Ostinato 11 (variation of ostinato 9)**



**Example 30(a): Ostinato 12**



**Example 30(b): Ostinato 13 (variation of ostinato 12)**



**Example 31: Ostinato 14**

## APPENDIX B

### PRB CHANCES OF OCCURRENCE IN THE FOURTEEN OSTINATI

X		X		X		X				X	
---	--	---	--	---	--	---	--	--	--	---	--

Figure 9: PRB chances in ostinato 1

X		X		X		X		X		X	
---	--	---	--	---	--	---	--	---	--	---	--

Figure 10: PRB chances of ostinato 2

X		X		X		X	X	X	X	X	
---	--	---	--	---	--	---	---	---	---	---	--

Figure 11: PRB chances of ostinato 3

X						X	X	X	X	X	
---	--	--	--	--	--	---	---	---	---	---	--

Figure 12: PRB chances of ostinato 4

X		X		X	X	X				X	X
---	--	---	--	---	---	---	--	--	--	---	---

Figure 13: PRB chances of ostinato 5

X		X		X	X	X		X			
---	--	---	--	---	---	---	--	---	--	--	--

**Figure 14: PRB chances of ostinato 6**

X	X	X		X	X	X		X	X	X	X
---	---	---	--	---	---	---	--	---	---	---	---

**Figure 15: PRB chances of ostinato 7**

X	X	X		X	X	X					
---	---	---	--	---	---	---	--	--	--	--	--

**Figure 16: PRB chances of ostinato 8**

X		X	X		X	X		X		X	X
---	--	---	---	--	---	---	--	---	--	---	---

X		X		X	X	X		X			
---	--	---	--	---	---	---	--	---	--	--	--

**Figure 17: PRB chances for the 2-bar ostinato 9**

X		X	X		X	X		X	X		X
---	--	---	---	--	---	---	--	---	---	--	---

X		X	X		X	X		X			
---	--	---	---	--	---	---	--	---	--	--	--

**Figure 18: PRB chances for the 2-bar ostinato 10**

		X	X		X	X					
		X		X		X					

**Figure 19: PRB chances for the 2-bar ostinato 11**

X	X		X	X		X	X		X	X	
---	---	--	---	---	--	---	---	--	---	---	--

**Figure 20: PRB chances of ostinato 12**

X	X		X	X		X					
---	---	--	---	---	--	---	--	--	--	--	--

**Figure 21: PRB chances of ostinato 13**

X		X	X		X	X		X	X		X
X		X	X		X	X		X			

**Figure 22: PRB chances in the 2-bar ostinato 14**



## APPENDIX C

### SAMPLE POLYRHYTHMIC BLOCKS

X		X	X		X	X		X	X	X	
X		X		X		X				X	

**Figure 23: PRB 1 (m. 5) in viola and cello**

X	X		X	X		X	X		X	X	
X		X		X		X				X	

**Figure 24: PRB 2 (m.9) in violin 2 and cello**

X						X		X		X	
X		X		X	X	X				X	X

**Figure 25: PRB 3 (m.13/14) in viola and cello**

X		X		X		X		X		X	
X		X		X	X	X				X	X

**Figure 26: PRB 4 (m.29) in viola and cello**

X		X	X		X	X		X		X	X
X		X	X		X	X		X		X	

**Figure 27: PRB 5 (m.30) in viola and cello**

X		X	X		X	X		X			
X	X	X		X	X	X		X	X	X	X

**Figure 28: PRB 6 (m.39) in violin 1 and viola**

X				X				X			
X		X	X		X	X		X	X		X

**Figure 29: PRB 7 (m.41) in violins 1 and 2**

X				X				X			
X	X	X		X	X	X					

**Figure 30: PRB 8 (m.48) in violin 1 and cello**

		X	X		X	X				X	
X	X	X		X	X	X					

**Figure 31: PRB 9 (m.49) in violin 2 and cello**

		X		X		X					
		X	X		X						

**Figure 32: PRB 10 (m.53) in violin 1 and 2**

		X	X		X	X					
X		X		X		X		X		X	

**Figure 33: PRB 11 (m.62) in violin 1 and cello**

		X	X		X	X		X	X		X
X		X				X		X		X	

**Figure 34: PRB 12 (m.70) in violin 2 and cello**

X		X	X		X	X		X	X	X	
X	X	X		X	X	X		X			

**Figure 35: PRB 13 (m.97) in viola and cello**

X		X	X		X	X		X	X		X
X		X		X	X	X		X			

**Figure 36: PRB 14 (m.104) in violin 2 and cello**

X	X		X	X		X	X		X	X	
X		X		X	X	X		X			

**Figure 37: PRB 15 (m.111) in violin 1 and cello**

X	X		X	X		X				X	
X		X	X		X	X		X	X		X

**Figure 38: PRB 16 (m.112) in violin 1 and 2**

X		X	X		X	X					
X		X		X		X	X	X	X	X	

**Figure 39: PRB 17 (m.116) in viola and cello**

X						X				X	
		X	X		X	X		X	X		X

**Figure 40: PRB 18 (m.123) in violin 2 and viola**

X		X	X		X	X		X			
		X		X				X		X	

**Figure 41: PRB 19 (m.127) in violin 2 and viola**

X		X	X		X	X		X			
X		X	X		X	X					

**Figure 42: PRB 20 (m.132) in violin 2 and viola**

X		X	X		X	X		X	X		X
X		X		X	X	X				X	

**Figure 43: PRB 21 (m.134) in violin 2 and cello**

X		X	X		X	X		X	X		X
X				X				X			

**Figure 44: PRB 22 (m.139) in violin 2 and viola**

X		X		X		X		X		X	
X					X	X		X	X		X

**Figure 45: PRB 23 (m.147) in violin 1 and 2**

X		X	X		X	X		X		X	
X				X		X	X		X	X	

**Figure 46: PRB 24 (m.161) in violin 1 and viola**

X		X	X		X	X	X	X			
X		X		X	X	X					

**Figure 47: PRB 25 (m.169) in violins 1 and 2**

X		X	X		X	X		X	X	X	
X	X		X	X		X					

**Figure 48: PRB 26 (m.173) in violin 1 and cello**

		X	X		X	X		X	X		X
X		X		X	X	X		X		X	X

**Figure 49: PRB 27 (m.177) in viola and cello**

X				X		X				X	
X	X	X		X	X	X					

**Figure 50: PRB 28 (m.187) in violin 1 and cello**

X		X	X		X	X		X	X	X	
X	X	X		X	X	X					

**Figure 51: PRB 29 (m.188) in violin 1 and cello**

X				X				X			
X						X	X	X	X	X	

**Figure 52: PRB 30 (m.195) in viola and cello**

X		X	X		X	X		X	X	X	
X						X	X	X	X	X	

**Figure 53: PRB 31 (m.196) in viola and cello**

X		X	X		X	X		X	X		X
X		X		X	X	X		X		X	X

**Figure 54: PRB 32 (m.212) in violin 2 and cello**

X		X	X		X	X		X	X		X
X	X		X	X		X	X		X	X	

**Figure 55: PRB 33 (m.219) in violin 2 and cello**

X		X	X		X	X					
X				X		X				X	

**Figure 56: PRB 34 (m. 223) in violin 1 and cello**

X		X	X		X	X					
X	X		X	X		X	X		X	X	

**Figure 57: PRB 35 (m. 225) in violin 1 and cello**

X		X	X		X	X		X	X		X
	X			X			X			X	

**Figure 58: PRB 36 (m.227) in violin 2 and viola**

X				X		X		X			
X		X	X		X	X		X	X		X

**Figure 59: PRB 37 (m.232) in violins 1 and 2**

X		X	X		X	X		X	X	X	
X						X		X	X		X

**Figure 60: PRB 38 (m.233) in violin 1 and cello**

X		X	X		X	X		X	X		X
X		X		X	X	X		X		X	X

**Figure 61: PRB 39 (m.239) in viola and cello**



## APPENDIX D

**Table 8: Justinian Tamusuza's Selected Output**

YEAR	TITLE	INSTRUMENTATION	PUBLISHER
2010	Ekinnonoggo	Chamber orchestra	International Opus
2007	Entujjo	Flute, Piano, 2 Violins, Viola, and Cello	International Opus
2006	Ebisoko By'Ekkondeere	French Horn, Percussion, and Strings	International Opus
2005	Ennasula Y'Obudongo	4 Timpani	International Opus
2003	Katonda Yebale (Deo Gratus)	Organ, Violin, and Percussion	International Opus
1996	Abaana Bange Na-Ka-Lwa	B-flat Clarinet, Saxophone, Electric Bass, and Marimba	International Opus
1996	Ektivvulu Ky'Endere (An African Festivity)	Flute, Viola, Prepared Harp, Marimba, and maracas	International Opus
1995	Abakadde Abaagalana Be Balima Akambugu	Baritone, Soprano, and Prepared Piano	Composers Guild, New Jersey
1995	Mu Kkubo Ery'Omusaalaba (On the Way of the Cross)	String Quartet	Berlin:Verlag Neue Musik
1995	Twadaagana Ku Lw'Omwana	String Quartet	Composers Guild, New Jersey
1994	Abaafa Luli (They Who Died)	Woodwind Quintet	International Opus
1988	Let Us All Men Rejoice	Chorus and Organ	Composers Guild, New Jersey
1988	Missa Mirembe Maria	Congregation, Chorus, and Organ	Composers Guild, New Jersey
1988	Omugongo Guluma (Aching Back)	Kiganda Traditional Instruments	Composers Guild, New Jersey
1988	2 2-Part Inventions	Piano	Composers Guild, New Jersey
1988	Cachemco, We Sing to God Our lord	Chorus and Organ	Composers Guild, New Jersey
1988	Baakisimba Muwogola	Flute, B-flat Clarinet, Maracas, and Drums	Composers Guild, New Jersey
1988	Omuzadde Omwagalwa	Women and Men	Composers Guild, New Jersey
1988	Yosefu Ssaabafumbo (Nuptial Song)	Chorus, Duet, and Organ	Composers Guild, New Jersey

## BIBLIOGRAPHY

Agawu, Kofi. "African music as Text." *Research in African Studies Literatures* vo.32, no.2 (2001): 8-16.

\_\_\_\_\_. *Representing African Music*. London: Routledge, 2003.

\_\_\_\_\_. "Theory and Practice in the Analysis of the Nineteenth-Century 'Lied.'" *Music Analysis*, vol.11 no.1 (1992): 3-36.

Arom, Simha. *African Polyphony and Polyrhythm*. Cambridge, UK: Cambridge University Press, 1985.

Cooke, Peter. "Ganda Xylophone Music: Another Approach." *African Music*, vol.4, no. 4 (1970), 62-80

Schwartz, Elliot and Godfrey Daniel. *Music Since 1945: Issues, Materials, and Literature*. Broadway: New York, 1992.

Euba, Akin and Kimberlin, Cynthia T. *Composition in Africa and the Diaspora*. Vol. 1, Point Richmond: California, 2008.

Ekwueme, Lazarus N. "Linguistic Determinants of some Igbo Musical Properties." *Journal of African Studies*, vol. 1, no.3 (1974):335-353.

Jones, A. M. *Studies in African Music*. London New York: Oxford University Press, 1959.

Kimberlin, Cynthia T., and Euba, Akin (eds). *Intercultural Music*. vol. 1, Bayreuth African Studies, 1995.

Konye, Paul. "Twentieth-Century Nigeria Art Music: Social, Political, and Cultural Factors Involved in Its Evolution and Practice." PhD diss., University of Kentucky, 1997.

Kronos Quartet. *Pieces of Africa/Kronos Quartet*. New York, N.Y.: Elektra Nonesuch, 1992.

- Kubik Gerhard. *Theory of African Music Vol.1*. University of Chicago Press, Ltd., London, 2010.
- Kyagambiddwa, Joseph. *Uganda Martyrs Oratorio: Music and Libretto*. s.l. : s.n., 1964.
- Labi, Gyimah. "Establishing an African Presence in the World of Art Music: Composer's Perspectives." *International Centre for African Music and Dance Panafest*, 1994.
- \_\_\_\_\_. *Theoretical Issues in African Music*. Bayreuth African Studies 53: Bayreuth. University, 2003.
- Nketia, J. H. Kwabena. *The Music of Africa*. London, UK: W.W. Norton & Company, 1974.
- Oluranti, Ayodamope. "Polyrhythm as an Integral Feature of African Pianism: Analysis of Piano Works by Akin Euba, Gyorgy Ligeti & Joshua Uzoigwe and *Àjùlò Kìniún* (Original Composition)," PhD diss., University of Pittsburgh, 2012.
- Omojola, Bode. "Contemporary Art Music in Nigeria: An Introductory Note on the Works of Ayo Bankole." *African* 64 (December 1994):533-543.
- \_\_\_\_\_. "Traditional and Contemporary Idioms of African Music." *Intercultural Folk Music Council* 16, (1964), 34-37.
- Onovweresuokeye, H. Wendy. "African Art Music For Flute: A Study of Selected Works by African Composers." PhD diss., Louisiana State University and Agricultural and Mechanical College, 2007.
- Tamusuza, Justinian. *Mu Kkubo Ery'Omusaalaba*. Berlin: Verlag Neue Musik, 1992.
- Tomlinson, Gary. "The Web of Culture: A Context for Musicology." *Nineteenth Century Music* 76, 1994.

# **Baakisimba N'Ebiggu**

*for violin, 'cello, percussion and prepared piano*

**Charles Lwanga**

**2012**

## **Baakisimba N'Ebiggu**

### ***Program Notes***

*Baakisimba ne'Ebiggu* is a composition whose principle is deeply rooted in the interaction of two music and dance genres of the *Baganda* (Baakisimba and Ebiggu), as well as Western Art musical Idioms. The piece makes use of a penta-chordal pitch class set in sections A and C, as well as a twelve-tone row in section B whose role is to provide contrast in pitch and harmonic vocabulary. Since the mood and structure of the piece is built on the traditional *Kiganda* music principle of repetition, the twelve-tone row is repeated over and over many times in different registers, dynamic levels, and in various instrumental combinations in order to impose the principle of repetition on a Western Art tonality. The composition, on the one hand, attempts to resituate Western Art tonal arrangement within the framework of African music repetition and, on the other hand, to elaborate compositional process in the two *Kiganda* music and dance genres. Moreover, the singing that happens in the piece elaborates the nature of participation of musicians in the process of vocalizing instrumental music. For the successful achievement of all the intended effects and outcomes therefore, all dynamics/articulations and all instrumental executions must be performed as instructed.

## Notation

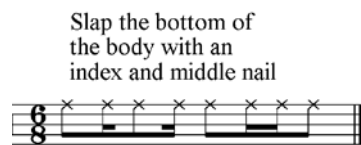
Score is written at concert pitch.

Accidentals hold throughout the bar.

Metronome markings are approximate. The duration of the piece is about 16 minutes.

## Violin

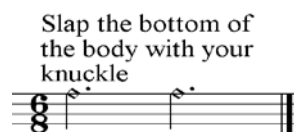
*Sul ponticello* holds until restored to *ordinario*.



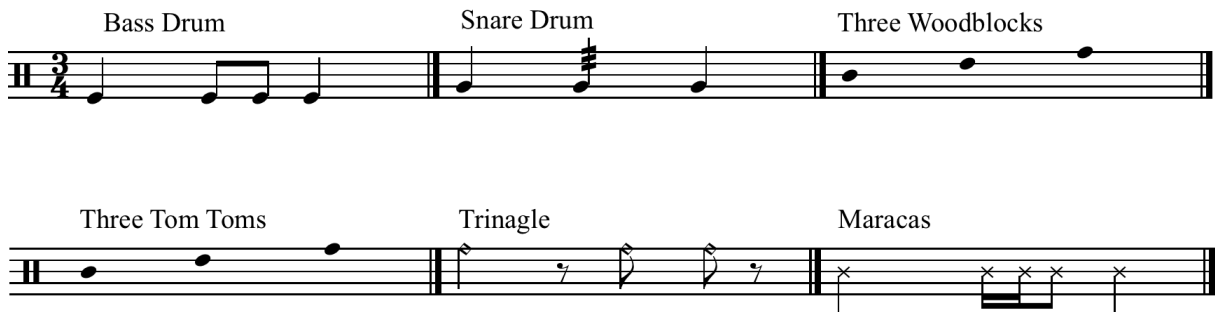
While you must sing the syllable *ye* while playing *pizz* in m.233 to 242, singing while playing in mm. 259-267 and 271-274 is optional. However, if the two (singing and playing) can be done simultaneously, this is closest to my intended goal.

## Cello

*Sul ponticello* holds until restored to *ordinario*.



Mm. 259-290, singing is optional. However, if both (singing and playing) can be done simultaneously, the end result will meet my goal.



## Piano

The piano is prepared in two ways:

- 1- Paper clips should be inserted in strings A5 to C7 in order to simulate the buzzing sonority of a Uganda thumb piano (Mbira).
- 2- Strings A1 to A2 should be muted either by tying a thick cloth to the strings, or by placing medium erasers in the strings in order to simulate the *Kiganda Embuutu* (big drum) sound.

## Text and Its Articulation

*Abaakisimba Be Baakiwoonya* means “those who planted it (a banana plant) transformed it into a tasty drink.” The words should be articulated as illustrated below:

*Abaakisimba* as: **AH-BAH-CHI-SIM-BAH**

*Beebakiwoomya* as: **BEH-BAH-CHI-WOOH-MYAH**

*Ye* as: **YEH,**

*Ssebo* as: **SAY-BOH**

----C L

# Baakisimba Ne'Ebiggu

Charles Lwanga  
Spring, 2012

**Allegro** ♩ = 120

Violin

Violoncello

Percussion

Piano

*knock with knuckle*

*mf*

Bass Drum

*p*

*mf*

*to snare drum*

6

Vln.

Vc.

Perc.

Pno.

*sul ponticello*

*fp*

*sfp*

*mf*

*3*

*3*

*3*

*snare drum*

*p*

*mf*

*p*

*mf*



11

Vln.

Vc.

Perc.

Pno.

*mf* *f* (G)

*p* *mf* *sf* *sf* *p* *r.sh*

*p* *Ped.*

$\text{♩} = 80$

15

Vln.

Vc.

Perc.

Pno.

*pizz* *p*

*to bass drum* *pp*

*A* *A*

20

Vln. *pizz*  
*p* *mf*

Vc. *mf*

Perc. *to triangle*

Pno. *mf*

25

Vln. *f*

Vc. *f*

Perc. *triangle*  
*f* *p*

Pno. *f*

30

*arco sul ponticello*

Vln. *mf*

Vc. *mf*

Perc. *p*

Pno. *8va*

35

*pizz*

Vln. *pizz*

Vc.

Perc. *to wood blocks*   *wood blocks* *f*

Pno. *8va*

40

*arco*

*pizz*

Vln.

Vc.

Perc.

Pno.

*sfp* *mf* *p* *f* *mf*

*p* *mf* *p*

*p* *mf* *p*

44

*arco sul ponticello*

Vln.

Vc.

Perc.

Pno.

*sfp* *mf* *mf*

*mf* *p* *mf* *mf*

*mf* *sfp* *mf*

48 *still pont...*

Vln. *mf* *fp* *f*

Vc.

Perc. *p* *mf*

Pno. *8va*

52 *pizz*

Vln. *p* *mf*

Vc.

Perc. *p* *mf* *f*

Pno. *(8) p* *p* *8va*

57 *slap the lower body with fingers*

Vln. *mf* *f* *mf*

Vc.

Perc. *to triangle* *triangle*  
*mf* *mf*

Pno.

61

Vln. *mf* *f* *mf*

Vc.

Perc. *mf*

Pno. *mf*

65

Vln.

Vc.

Perc.

Pno.

*mf*

*p*

*to bass drum*

*arco sul ponticello*

**B**

**B**

69

Vln.

Vc.

Perc.

Pno.

*p*

73

*ord.*

Vln.

Vc.

Perc.

Pno.

*p*

*mf*

*bass drum*

*p*

*mf*

*f*

77

Vln.

Vc.

Perc.

Pno.

*pizz*

*p*

*f*

*mf*



81

*pizz*

Vln.

Vc.

Perc.

Pno.

*arco*

*p*

85

*arco*

Vln.

Vc.

Perc.

Pno.

*mf*

*p*

89

Vln. *p* *mf* *fp* *f*

Vc. *mf* *f* *mf*

Perc. *mf*

Pno. *mf*

94

Vln. *mf* *f*

Vc. *fp* *mf* *f*

Perc. *mf*

Pno. *p* *f* *mf*

99

Vln. *f* *ff*

Vc. *f* *ff*

Perc. *f* *ff* *pp*

Pno. *f* *ff*

**C**

104

Vln. *pizz* *pp*

Vc. *pizz* *pp* *p*

Perc.

**C**

Pno. *pp* *p*

*sing while playing*

A baa - ki-si - mba

109

Vln. *mf* *f*

Vc. *mf* *f*

Perc.

Pno. *f*

Be baa-ki-woo-mya A-baa - ki-si - mba Be baa - ki-woo-mya

114

Vln. *p*

Vc. *p*

Perc.

Pno.

A-baa - ki-si-mba Be baa - ki-woo-mya ye - - - yaa

$\text{♩} = 124$

119

Vln.

Vc.

Perc.

Pno.

*arco*

*mf*

Bass Drum

*p*

*mf*

*mp*

*pp*

8va

124

Vln.

Vc.

Perc.

Pno.

*arco*

*pizz arco*

*sfp*

*mf*

*3*

*sfp*

*f*

*arco*

*sfp*

*f*

*p*

*pp*

8va

129

Vln. *sf* *sf* *p*

Vc. *sf* *mf*

Perc. *to snare drum (with covered head)* *snare drum with wire brush on covered head* *p*

Pno. *p* *pp*

134

Vln. *mf* *pizz* *sfmf*

Vc. *p* *mf* *p* *mf*

Perc. *mf* *p* *mf* *to triangle*

Pno. *p* *mf* *mf*



148

Vln.

Vc.

Perc.

Pno.

*sfp*

*f*

*mf*

*f*

*mf*

*Ped*

152

Vln.

Vc.

Perc.

Pno.

*mf*

*p*

*mf*

*sfp*

*mf*

*sfz*

*p*

*f*



156

Vln. *mf* *pizz* *arco* *f* *sfz* *f* *sfz*

Vc. *pizz* *arco* *mf* *f*

Perc. *f*

Pno.

159

Vln.

Vc. *mf* *pizz* *mf*

Perc. *spp* *f* *mf*

Pno. *mf* *sfz*

162

Vln. *mf* *sfp* *f*

Vc. *arco* *sfp* *f*

Perc. *mf* *f* *marimba* *f*

Pno. *mf* *f* *8va*

165

Vln. *f* *f*

Vc. *f* *f*

Perc. *f* *to woodblocks*

Pno. *ff* *mf*



174

Vln. *f* *fff* *f*

Vc. *fff*

Perc. *f* *ff* *marimba*

Pno. *f* *8va* *f*

177

Vln. *f* *f* *ff*

Vc. *f* *f* *ff*

Perc. *f* *f* *ff*

Pno. *f* *8va* *ff*

♩. = 80

180

Vln.

Vc.

Perc.

Pno.

*ff* *p*

*pizz* *p*

*to bass drum* *bass drum*

*ff* *p*

**E**

185

*pizz* (singing is optional)

Vln.

Vc.

Perc.

Pno.

*p*

ye ye ye ye ye ye ye ye ye ye ye ye ye ye ye

190

Vln. *ye ye ye ye ye ye ye ye ye ye ye ye ye ye ye ye*

Vc. *mf*

Perc. *to a pair of maracas* *maracas* *p*

Pno. *mf Sing while playing*

A baa - ki - sim- ba Be baa-ki-woo-mya A-baa-ki - simba Oh Be baa - ki-woo-mya

195

Vln. *ye ye ye ye*

Vc.

Perc.

Pno. *f*

Eh A-baa - ki-sim ba eh eh eh eh eh eh

200

Vln.

Vc.

Perc. *to triangle* *triangle*  
*p*

Pno. *f* *p*

A baa - ki-sim - ba Oh Be baa - ki-woo mya - - - A baa - ki-si - mba -

205

Vln.

Vc.

Perc. *p*

Pno. *mf* *f* *p*

A baa - ki sim-ba Be baa - ki-woo - mya ye ye ye

210 *arco (sing or play or both)*

Vln. *mf* A-baa - ki - sim - mba Oh Be baa - ki-woo -

Vc. *arco (sing or play or both)* *mf* A-baa - ki - sim - ba - - - - - Oh Be baa - ki-woo mya *f*

Perc. *mf* *p* *mf* *p*

Pno. *mf* *f*

ye ye ye ye ye Oh A-baa - ki - sim - ba Be baa - ki-woo-mya A-baa - ki-sim - ba

214

Vln. mya *p* A baa - ki-si - mba *mf* A - baa - ki - si -

Vc. A baa - ki-si - mba - - - *mf* A-baa - ki-si - mba

Perc. *mf* *to tom -toms*  

Pno. *mf*

Be baa - ki-woo - mya A-baa - ki sim - ba Oh Be baa - ki-woo - mya A-baa - kisim - ba sse - bo



218

Vln. *mba* *f* *Be baa ki-woo - mya* *p*

Vc. *Be baa-ki-woo-mya* *f* *p* *A - baa - ki-sim - ba* *Be baaki - woo - mya* *mf* *A - baaki - sim - ba*

Perc. *tom - tom* *p*

Pno. *Be baa-ki-woo-mya* *A-baa - ki-sim-ba sse - bo*

222

Vln. *pizz (singing is optional)* *p* *ye ye ye ye* *ye ye ye ye* *ye ye ye ye*

Vc. *Be baaki - woo - mya* *A - baa - ki-sim - ba* *Be baa - ki-woo - mya*

Perc. *p*

Pno. *Be baa - ki-woo-mya* *Abaa - ki - si - mba*

226

Vln. *arco*

Vc. *arco*

Perc.

Pno.

8va

ye ye ye ye

*p* *mf*

Bebaa - ki-woo - mya

230

Vln.

Vc.

Perc.

Pno.

*p* *mf*

*mf* *p* *p* *mf*

234

Vln. *f* *p* *pizz (sing or play or both)*

Vc. *f* *p* *mf* A - baa - ki-sim - ba Be - baa - ki-woo - mya A - baa - ki-sim - ba

Perc. *p* *mf* to bass drum and maracas

Pno. *mf* (A) sing while playing A-baa-ki-sim - ba sse - bo

238

Vln. *pizz* *pp*

Vc. Be baa - ki-woo - mya A - baa - ki-sim - ba Be baa - ki-woo - mya A - baa - ki-sim - ba

Perc. *pp* *p*

Pno. *pp* *pp* Be baa - ki-woo - mya A-baa - ki-sim - ba Ba baa - ki-woo - mya A-baa - ki-si - mba



250

Vln.

Vc.

Perc.

Pno.

8va

255

Vln.

Vc.

Perc.

Pno.

*sfz p mf sfz p*

*arco*

*sfz p mf*

260

Vln.

Vc.

Perc.

Pno.

*mf* *sfz* *p* *p* *mf*

*sfz* *p* *mf* *sfz* *p* *mf*

*pp*

*pp*

8va

265

Vln.

Vc.

Perc.

Pno.

*pp* *p* *pizz* *p*

*pp* *p* *pp* *p*

*pp* *p* *p* *p*

*p*

8va

269

*arco*

Vln.

*pizz*

Vc.

Perc.

Pno.

*pp*

*p*

*8va*

Detailed description: This system covers measures 269 to 273. The Violin I part (Vln.) is marked *arco* and features a melodic line with slurs and accents. The Violin II part (Vc.) is marked *pizz* and plays a rhythmic accompaniment. The Percussion part (Perc.) has a consistent pattern of eighth notes. The Piano part (Pno.) includes a section marked *8va* (octave) in measures 270-271. Dynamics range from *pp* (pianissimo) to *p* (piano).

274

Vln.

Vc.

Perc.

Pno.

*p*

*pp*

*p*

*pp*

*pp*

*p*

*8va*

Detailed description: This system covers measures 274 to 278. The Violin I part (Vln.) has a melodic line with a long slur in measure 274. The Violin II part (Vc.) plays a melodic line with slurs and accents. The Percussion part (Perc.) continues with eighth notes. The Piano part (Pno.) includes a section marked *8va* (octave) in measures 275-276. Dynamics range from *p* (piano) to *pp* (pianissimo).

279

Vln. *p* *pizz* *p*

Vc. *p* *pizz* *p*

Perc. *p*

Pno. *p*

284

Vln. *arco*

Vc. *arco* *mf*

Perc. *pp* *p*

Pno. (8) *p* *pp* *p*



289

Vln.

Vc.

Perc.

Pno.

*mf*

*f*

*mf*

*f*

*mf*

294

Vln.

Vc.

Perc.

Pno.

*f*

*f*

*8va*

*8va*

299

Vln. *pizz*  
*f*

Vc. *pizz*  
*f*

Perc. *ff* *f* *mf*

Pno. *ff* *f* *mf*

**G**

♩ = 130

304

Vln. *arco*  
*f* *f* *mf*

Vc. *arco*  
*f* *f* *mf*

Perc. *f* *f* *mf*

Pno. *f* *f* *mf*

**G**

309

Vln.

Vc.

Perc.

Pno.

*p*

*p*

*p*

*p*

314

Vln.

Vc.

Perc.

Pno.

*mf*

*mf*

*mf*

*mf*

319

Vln. *f* *p*

Vc. *f* *p*

Perc. *f* *mf* *p* *pp*

Pno. *f* *mf* *p* *pp*

324

Vln. *p* *p*

Vc. *p* *p*

Perc. *pp* *pp*

Pno. *pp*

329

Vln. *p* *mf* *f* *ff* *fff*

Vc. *p* *mf* *f* *ff* *fff*

Perc. *mf* *f* *ff* *fff*

Pno. *mf* *f* *ff* *fff*

8va

334

H

♩. = 88

Vln. Hyper Vibrato

Vc. Grotosque . vib

Grot. vib

*p* *mf* *p*

to marimba

marimba

Perc. *p*

H

Pno.

339 (E) *sul ponticello* ♩ = 124

Vln. *mf* *pizz* *f* *p* *mf* *p* *fp*

Vc. (B) (B) (B) *f* *p* *mf*

Perc. *pp*

Pno. *p* *pp* (B)

344

Vln. *arco* *mf* *sfp*

Vc. *p* *mf* *sfp*

Perc. *p*

Pno. *p*

♩. = 92

349 *arco sul ponticello*

Vln. *p*

Vc. *pizz* *mf*

Perc. *mf*

Pno. *mf*

353

Vln. *f* *arco* *ff*

Vc. *f* *ff*

Perc. *f* *to wood blocks*

Pno. *f* *ff*

*8va*

*8va*

*8va*

357

Vln.

Vc.

Perc.

*wood blocks*

*f*

*ff*

*to vibraphone (with two mallets)*

Pno.

*f*

361

Vln.

Vc.

Perc.

*pizz*

*f*

*sul ponticello*

*f*

*vibraphone*

*f*

Pno.

*f*



365

Vln.

Vc.

Perc.

Pno.

*f* (B) (E) *arco*

*to marimba* *marimba* *mf* *f*

*shout* *f* A - baa - ki - sim - ba Be baa - ki - woo - mya

370

Vln.

Vc.

Perc.

Pno.

*sul ponticello* *f*  $\text{♩} = 124$

*f* *f* *8va*

**I** $\text{♩} = 92$ *arco ord.* $\text{♩} = 60$ 

375

Vln. *Grot. vib* *mf* *fpp*

Vc. *mf* *fpp*

Perc.

Pno. *mf* *f* *p*

*f*  
Ped.

379

Vln. *p*

Vc. *p*

Perc. *fpp* *pp*

Pno. *pp*

382 *pizz*

Vln.

Vc.

Perc.

Pno.

*f*

385 *arco*

Vln.

Vc.

Perc.

Pno.

*fpp*

*fpp*

*fpp*

388 *pizz*

Vln. *ppp* *p* *arco* *pizz*

Vc. *ppp* *f* *p*

Perc.

Pno. *ppp* *8va* *5ma*

391 *arco*

Vln. *pp* *p*

Vc. *arco*

Perc. *pp*

Pno. *8va*



400

Vln.

Vc.

Perc.

Pno.

*f* 3 5

*f* 3

*fp* 3 *mf* 5

*f* 3 5

*ff*

*f*

403

Vln.

Vc.

Perc.

Pno.

5

3 5

*f* 5

*f* 5

*to woodblocks*

*woodblocks*

*f* 5

*f* 5

8va



415

Vln. *pizz* *f*

Vc. *pizz* *f*

Perc. *ff* *fff*

Pno. *ff* *fff*

8va



K

418  $\text{♩} = 140$

Vln.

Vc.

Perc.

*snare*

*fp* *fp*

K

Pno.

423

Vln.

Vc.

Perc.

Pno.

*f* *ff*

*f* *ff*

428

Vln. *f*

Vc. *f*

Perc. *f*

Pno. *f*

8va

433

Vln. *p*

Vc. *p*

Perc. *p*

Pno. *p*

(8)<sup>1</sup>

8va

438

Vln.

Vc.

Perc.

Pno.

*pizz*

(8)

443

Vln.

Vc.

Perc.

Pno.

*mf*

*snare*

*p*

*mf*

448

Vln. *f*

Vc. *arco* *f* *pizz*

Perc. *f*

Pno. *f*

*pizz*

453

Vln.

Vc.

Perc.

Pno.

458

Vln. *arco*

Vc. *arco*  
*mf* *f*

Perc. *Put down the sticks to play tom toms with hands*  
*tom toms (with hands)*  
*f*

Pno. *mf* *f*

Detailed description: This system contains measures 458 through 462. The Violin (Vln.) part starts with a whole note G4, followed by rests, and then a rapid sixteenth-note scale starting at measure 460. The Viola (Vc.) part plays a similar pattern, starting with a half note G3 and then moving to a half note F3. The Percussion (Perc.) part has rests until measure 460, where it begins playing a rhythmic pattern on tom toms. The Piano (Pno.) part features a continuous sixteenth-note pattern in the right hand, while the left hand has a simple bass line.

463

Vln. *arco*

Vc. *arco*

Perc. *8va*

Pno. *8va*

Detailed description: This system contains measures 463 through 467. The Violin (Vln.) and Viola (Vc.) parts continue their respective patterns. The Percussion (Perc.) part continues the tom toms pattern. The Piano (Pno.) part continues the sixteenth-note pattern in the right hand. A dashed line labeled '8va' indicates an octave shift for the Percussion and Piano parts starting in measure 465.



**L**

478 *arco*

Vln. *f* *ff*

Vc. *arco* *f* *ff*

Perc. *f* *ff* *f*

Pno. *f* *ff*

483

Vln. *ff* *ff* *mf*

Vc. *ff* *ff* *mf* *pizz*

Perc. *ff* *ff* *mf*

Pno. *ff* *ff* *mf*

488

Vln. *pizz* *f*

Vc. *f*

Perc.

Pno. *f*

493

Vln. *arco*

Vc. *arco* *f*

Perc. *f* 3 *f*

Pno.



498

Vln. *arco*

Vc. *f* *ff* *pizz* *ff*

Perc. *ff*

Pno. *ff*

503

Vln. *arco* *pizz* *subito*

Vc. *arco* *pizz*

Perc.

Pno. *8va*

508

Vln.

Vc.

Perc.

Pno.

*f*

*arco*

*f*

*ff*

*ff*

(8)

*ff*

8va

513

Vln.

Vc.

Perc.

Pno.

*mf*

*pp*

*p*

*mf*

*p*

*mf*

*p*

(8)

*mf*

*p*

8vb

518

Vln.

Vc. *pizz* *arco* *p* *fp*

Perc. *p*

Pno.

8va

523

Vln. *p* *fp*

Vc.

Perc. *with hands* *p*

Pno. *p* *Red.*

528

Vln. *f p* *p*

Vc. *pp*

Perc. *pp* *p*

Pno. *pp* *ppp*

533

Vln. *ppp*

Vc. *ppp*

Perc. *ppp*

Pno. *ppp*

*Red.* *8<sup>th</sup>*

538

Vln.

Vc.

Perc.

Pno.

(8).....

The musical score for measures 538-541 is as follows:

- Violin (Vln.):** Four measures of sustained notes, each with a phrasing slur. The notes are: G4 (half note), A4 (half note), B4 (half note), and C5 (half note).
- Viola (Vc.):** Four measures of sustained notes, each with a phrasing slur. The notes are: E3 (half note), F3 (half note), G3 (half note), and A3 (half note).
- Percussion (Perc.):** Four measures. The first measure contains a rhythmic pattern of eighth notes (G4, A4, B4, C5, B4, A4, G4, F4). The following three measures are rests.
- Piano (Pno.):** Four measures. The first measure contains a sustained bass line (E2, half note). The following three measures are rests.

A rehearsal mark (8) is indicated at the start of the Piano part.